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Orthopaedic Physical Therapy Practice

AN OFFICIAL PUBLICATION OF THE ORTHOPAEDIC SECTION
AMERICAN PHYSICAL THERAPY ASSOCIATION

ORTHOPAEDIC PHYSICAL THERAPY HOME STUDY COURSE 94-2
TOPIC: "THE LUMBAR SPINE"
COURSE LENGTH: 6 SESSIONS JULY-DECEMBER 1994

Proposed Authors and Topics:

- Paul Beattie, PhD, PT, OCS
  Anatomy of the Lumbar Spine
- Clare Kalina, PT
  Evaluation & Treatment of the Lumbar Spine & Pelvis in the OB/GYN Population
- Carole B. Lewis, PT, GCS, MSG, MPA, PhD & Nancy Benington, PT
  A Rehabilitation Approach of the Geriatric Lumbar Spine
- Myra L. Pumphrey, PT, ATC & Jerry O. Pumphrey, PT
  Evaluation of the Lumbar Spine: Exploring the Maitland Concept and Other Approaches of Australian Origin
- Terry Reynolds, MS, PT, OCS
  Differential Diagnosis for Patients with Low Back Pain
- Duane Saunders, MS, PT & Kathy Beissner, PhD, PT
  Spinal Traction

Contained within this course is information relating to:
BASIC SCIENCE • PATHOLOGY • ISSUES OF CLINICAL DECISION MAKING • CASE STUDIES

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1. Walsh, N. and Schwartz, R. *Am J Phys Med Rehab* 1990.
2. Nachemson, A. and Lindh, M. *Scand J Rehab Med* 1969.
3. Holmström, E. and Ulrich, M. *Spinal Disorders* 1992.
4. Anderson, C. *Advanced Ergonomics* 1993.

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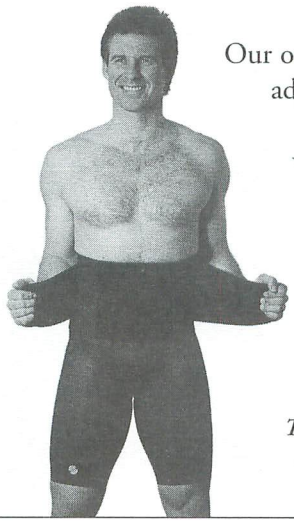

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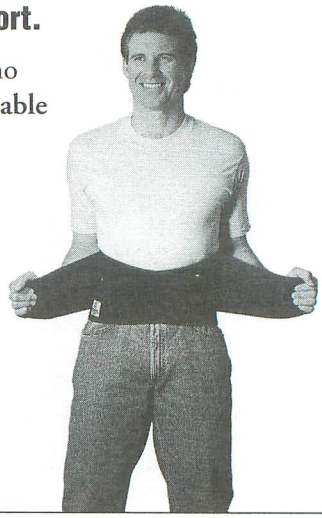

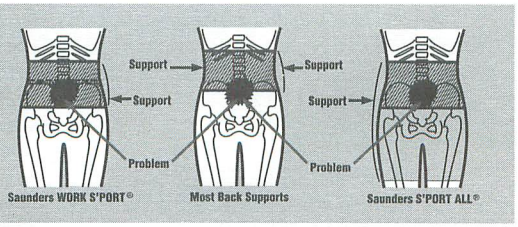

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Editor's Note

Service With A Smile

I recently read an article where the author was extolling the virtues of his banker regarding a personal loan. It seems that the banker arranged to meet him at a restaurant for lunch and proceeded to produce the completed paperwork so that all that was left for the borrower to do was "sign on the dotted line." When questioned about his extra effort, the banker commented that all the other banks in town would have made the loan available and so he felt compelled to provide something extra—service.

Sometimes I think that we forget we are in a service industry of sorts. Many physical therapy clinics serve up their practices in a variety of forms. Some practices are high tech, with computerized testing devices strategically placed in the clinic for high visibility, and proudly marketed on all the promotional materials. Other clinics represent interior design in its glory with mauve carpet and matching wallpaper. Still others offer different and specialized clinical approaches, e.g., manual therapists, Feldenkrais practitioners, etc. Once past these differences, isn't it true that every clinic offers passive modalities, hands on techniques and exercise? What is it then, that separates these clinics—what makes one good and the other less than good? Isn't it service?

I'm sure that I always knew the answer, but it was reinforced recently when our clinic conducted a survey of past patients. When these individuals were given a chance to write in about their physical therapy experience, the most positive comments had nothing to do with the quality of care offered. There was hardly any discussion of the professionalism of the therapist or their skill level. And there were no comments made regarding functional outcomes. Rather, the most positive comments were all about how *nice* we were.

And that shouldn't surprise you—should it! I've listened to my patient's complain about the insensitivity of Orthopaedic Surgeons for years. We've also surmised that PTs don't get sued very often because our patients like us—people don't sue people they like. When all is said and done, the number one outcome measure may just be *patient satisfaction.*

Regardless of your skill level, educational achievements or certifications, the patient is a consumer expecting to be pleased — so smile!

Jonathan M.
Cooperman, MS, PT, JD

FROM THE SECTION OFFICE

Terri A. Pericak, Executive Director

Annual Conference in Toronto proved to be a successful meeting for the Section. Highlights from the meeting as well as the activities and accomplishments of each Committee can be found in the business meeting minutes and committee reports in this issue of *Orthopaedic Practice*.

Upon returning from Annual Conference the Section office was busy preparing for the July 'Review for Advanced Orthopaedic Competencies' course which was held in Williamsburg, Virginia, as well as getting ready for the start of the 94-2 home study course on the lumbar spine.

The Finance Committee meeting is scheduled for the end of August at the Section office in La Crosse, Wisconsin. The primary purpose of this meeting is to plan the budget for 1995. Following this meeting at the end of September is the Fall Board of Directors meeting in Scottsdale, Arizona. This is primarily a future planning meeting for the Section.

If you have any comments, ideas or suggestions for us, please don't hesitate to contact the Section office at 1-800-444-3982. We always look forward to hearing from you. Thank you!

Applications Available for the 1995 Specialist Certification Exams

Application materials are now available for the 1995 physical therapy specialist certification exams. Board certification is offered in cardiopulmonary, clinical electrophysiologic, geriatric, neurologic, orthopaedic, pediatric, and sports physical therapy. The last day to request an application will be August 31, 1994 and the deadline for submitting applications is postmarked September 12, 1994. Exams will be administered through EXPro, an electronic testing system that utilizes a touch-screen computer device. Approved candidates can register to take the exam between the dates of March 1-31, 1995.

To request an application, call APTA's Specialist Certification Department at 800/999-2782, ext. 3152 or write to APTA, Specialist Certification Department, 1111 North Fairfax St., Alexandria, VA 22314-1488.

1995 Review for Advanced Orthopaedic Competencies

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CONSIDERATIONS FOR PHYSICAL THERAPY MANAGEMENT OF THE POSTOPERATIVE SPINE PATIENT

By Carol McFarland, MS, PT, OCS

Introduction

A clinical paradox currently exists regarding spine patients. The physical therapy literature and teaching is clearly geared towards nonsurgical spine pathologies. In addition, the trend in the orthopaedic community is moving away from surgical intervention for spine patients. However, there is still a significant surgical spine population and a constant effort to develop and improve on surgical approaches such as arthroscopy and artificial disc. There is also a population of spinal trauma patients requiring surgery. Physical therapists, therefore, should expect to continue to treat surgical spine patients.

Most physical therapists recognize the role of rehabilitation in optimizing postsurgical spine function. In procedures where the muscular, ligamentous, and/or skeletal components of the spine are necessarily invaded, i.e. surgery, therapy logically has much to offer for maximal recovery. However, two factors may cause other health care practitioners, primarily physicians, to question the efficacy of physical therapy.

First, spine surgery includes a primary nervous system component more often than most other musculoskeletal surgeries. The patient's chief complaint is of pain rather than of a lack of function. Immediate postoperative changes in the nervous system often produces such dramatic pain relief that the grateful patient and, consequently, the surgeon are satisfied with the surgical results. Return to full function of muscular, ligamentous, and skeletal components to restore optimal motor control may be minimized or neglected altogether since the primary goal has been achieved. Therapists cannot show efficacy for their interventions if they are considered unnecessary at that point.

A second difficulty in showing efficacy for physical therapy in postoperative patients is that little research -either prospective or retrospective- has been done on the surgical spine patient. We presently lack the diagnostic tools to distinguish outcomes due to surgery alone and from outcomes due to surgery plus therapy. Many surgeons may, therefore, question if physical therapy makes a significant difference in patient outcomes.

Physical therapists will make a better case for their potential role if they can accurately describe the rationale for each aspect of the treatment they provide. The purpose of this paper is to propose a method for developing detailed postoperative protocols that fully describe each aspect of the patients' rehabilitation needs in treatment. Ideal protocols will allow for individualization of treatment depending on the patient's condition, the surgery done, and complications that are commonly encountered (with interventions included in the protocol). These protocols can then help the therapist justify their intervention to the surgeon, the patient, and the third party payor.

Considerations In Creating Protocols

Producing effective protocols involves several considerations in order to address each step of the rehabilitation and describe its rationale. If our therapeutic results are suboptimal, we can then look at each step to determine which ones may not be helping instead of dismissing the whole protocol. To initiate the process, ideas for considerations that should be included in the spine protocol are described below. Although priority given to each consideration will vary between surgeries, they are listed generally in order of priority for the clinician.

1. Disc protection.

In a nonfusion surgery, disc protection is critical, especially for the operated level or levels. Watching the patient's posture and minimizing forces on the disc in the initial stages of therapy are important considerations. Another factor to consider is when, and to what extent, to reintroduce the forces on the spine to resume normal spine function and rebuild support. Also to be addressed is the extent to which compressive, decompressive, and gentle controlled motions in different planes may help the disc heal or strengthen the annulus.

In fusion surgery, considerations must be made for the discs adjacent to the fusion as disc problems are often seen here. One may speculate that this is a mechanical problem and may be best addressed through mechanical treatment, ie. manual therapy.

The potential effects of other common modalities used in disc healing may also be a consideration. Ultrasound, for example, has been shown to help with ligamentous and tendinous healing; (9) this effect may be due to increased collagen production. (10) Therefore, ultrasound might increase collagen production in the disc area and help rebuild the annulus.

2. Ligamentous status/joint mobility.

For both the nonsurgical and the surgical spine patient, level by level joint hyper- and hypomobility must be assessed for operated spines. Cervical, thoracic, and lumbar spine should all be assessed and managed. Hypermobility often indicates a need for extra attention to stabilization and strengthening in the immediate joint area. Mobilization of hypomobile segments may help control pain as well as aid normal overall mobility of the spine. Optimal motion at a maximal number of segments would theoretically reduce pressure or force build up on single vulnerable segments.

With nonfusion surgeries, mobility work begins as early as two weeks postoperatively and may actually be safely started earlier. The timing is usually determined by the surgeon. In some instances-particularly arthroscopic procedures-an approach similar to continuous passive motion (CPM) might be indicated and could begin immediately after surgery. The rationale would be similar to that for CPM for peripheral joints.

For fusion surgeries, however, the

directly involved area is generally agreed to need protection for at least six to eight weeks. Usually therapy is deferred in this period of time. The degree to which internal fixation devices may shorten this time frame is still unknown. Mobility work may be indicated during this time for areas at least a few levels away from the surgery if the surgical site is well stabilized. Some surgeons may not allow mobility work as an unwarranted risk. However, without mobility work, patients might risk deterioration of the uninvolved levels due to stasis. Because of the potentially dangerous nature of mobility work on a fusion patient, these techniques must be carefully applied by therapists. Attention to limitations and precautions may help therapists safely apply mobilization when needed. There are very few references to help a therapist decide the extent and choice of technique to use for these cases.

3. Bone integrity.

Bone integrity is an area open to much debate. In fact, current considerations present themselves exclusively as questions rather than proposed interventions. In the patient with fusing bone, will compressive forces help accelerate the fusion process? Should we encourage maximal time in upright positions and possibly add weight in an axial direction to stimulate bone growth? Should we study various exercises and classify them in terms of compression versus decompression or distraction forces on the spine? Should we make similar considerations for the osteoporotic patient? How much protection is afforded by bone stimulators? Since smoking is a known risk to bone fusion (19), how much should the therapist become involved in counseling or directing the patient regarding smoking habits? These are questions which must be answered if we expect to maximize the therapeutic influence of rehabilitation on bone.

4. Muscular length and strength.

Muscles are unquestionably affected during surgery. Some are stripped away from the bone and some, on occasion, are denervated. These changes occur in addition to the atrophy that invariably takes place following the injury and in the inactive postoperative period. Consideration of the muscular component for optimal recovery of spine patients is therefore critical.

Muscle balance is important for all types of spine patients. Muscle balance errors are often the reason for failure of an exercise program. Attention to muscle balance requires assessing muscular forces, right versus left, anterior versus posterior, and superficial versus deep. This can be accomplished through posture work and exercises that are specifically designed and monitored. Forces must be proportionately applied. Therefore, the therapist should carefully assess muscular length and strength, especially in the trunk, hips, and shoulder girdle. Surgery may make existing muscle balance problems worse. After surgery, there may be scarring of surrounding tissue, changed location and function of tendon attachments (especially with fusion), variations in nerve supply, and atrophy from physical inactivity. For example, the psoas and quadratus lumborum muscles (frequent culprits in nonsurgical low back patients' lumbopelvic mechanics) (15) are often involved following lumbar fusion. Some of their once movable attachments on lumbar vertebrae become fixed, and there is a tendency toward excessive muscle shortening after the fusion. These muscles become a real challenge to stretch and restore to normal function.

Including aerobic work in the program can also help assure oxygen delivery to the muscles for better potential healing as well as facilitate conditioning.

5. Nerve irritation or damage.

As noted, nerve irritation or damage is often significantly reduced with surgery. However, residual nerve irritations or pathologies are not uncommon. It is important to know which nerve symptoms are an expected, or "normal," part of postoperative recovery, and which are not. The wide range of symptoms often makes diagnosis of "normal" versus "failed" surgery difficult. It is therefore not always clear if the nerve symptoms can be addressed by therapy alone.

There are multiple opinions on management of involved nerves that include medications, injections, rhizotomies, TENS, and physical modalities. Clinicians have described successful management strategies for problems as involved as postoperative reflex sympathetic dystrophy, which is perhaps the most extreme example of exacerbation of limb pain and dysfunction. (5) Sometimes these previous reports help the therapist make a better choice for their patient with residual nerve irritation.

Desensitization over the painful radicular area is sometimes successful. It may also be beneficial to treat the nerve irritation peripherally as well as centrally for pain control. In our practice, for example, we have applied electrical stimulation in the area of lumbar pain and distally in the leg along the path of the radicular pain in the postoperative patient. Soft tissue manipulation can also provide relief from a neurologic standpoint. (6)

Many patients experience significant radicular pain reduction from dural stretching in both the lower and the upper extremities. In the lower extremity, dural stretching is done most commonly with maintained straight leg raise and ankle dorsiflexion. In the upper extremity, it is done by extending the shoulder past neutral in about 45 degrees of abduction, externally rotating the upper extremity, and extending the wrist and fingers maximally. A primary consideration here is to what degree the discomfort produced by the dural stretch (ie. increased nerve irritation) can be justified in the interest of obtaining transient relief. If subsequent trials produce progressively longer periods of relief, a corrective process may be taking place. It may be that the dura is actually lengthening. Also the movement of the nerve during the stretch may free it from restricting tissue, such as scar.

6. Soft tissue healing.

The incision area should be monitored through the rehabilitation period of the postoperative patient. Myofascial techniques can be helpful with pain control and may facilitate tissue healing. Swelling should be monitored and controlled as much as possible via ice, compression if tolerated, or electrical stimulation. Prevention of adhesions may be accomplished by early soft tissue mobilization. Other modalities may also help accelerate soft tissue healing.

7. Body mechanics changes.

Potential body mechanics changes in the surgical spine patient are important considerations for physical therapists. One common example is seen in lumbar fusions which reduce the patient's lordosis. Because of the patient's tendency to compensate with forward head and shoulders or overly flexed hips, functional mobility must be retrained. Reinforcing a straight back posture through repeated functional moves with the patient maintaining head, scapula, and buttock contact on a dowel rod or yardstick is one method of correction. (4,18) The patient whose long term unilateral radicular symptoms are alleviated by surgery may continue to favor the symptomatic side even after surgical resolution. Assessing pelvic alignment is important, and gait analysis is also helpful. An

important but yet unresolved issue is the effect of leg length discrepancy on body mechanics. The question of correcting leg length often arises with spine patients; the answer will require quantitative research.

8. Other pertinent health factors.

Physical therapists will find it beneficial to record the patient's medication intake, diet habits, water intake, and vital signs on each visit. Other helpful information includes daily walking distance, amount of sleep per twenty four hours, and general activity through the day. With fusion procedures a patient's calcium intake may be pertinent. An interest in the patient's nonsmoking program can help with compliance for some patients as well. Being sure that the patient understands the significant risk that smoking adds to fusion is important. The therapist is usually the patient's most frequent contact and is therefore in the best position to detect health habit errors and refer the patient to the physician for help.

DISCUSSION

Physical therapists interested in managing postoperative spine patients should describe their protocols and have them peer reviewed. Showing efficacy will be the next step and will require prospective research on each of the variables physical therapists treat in order to determine if and to what extent each benefits the surgical spine patient. We need to know what aspects of therapy work, what aspects do not, accept the truth, and consider alternative interventions. This process is crucial in the development of the portions of our work that are proven efficacious.

Information must be shared among therapists regarding their protocols for different surgeries. Because of the number of joints affecting each vertebral level and the number of possible combinations of joint movements, more description is needed in the spine than in most areas. We need to know, for instance, which postoperative signs and symptoms call for more and which call for less movement at each vertebral level and involved neighboring joints such as the shoulders, hips, and pelvis. We need to specify which muscle groups and which joints should be emphasized in each aspect of protocols. More detail is also needed in describing manual therapy and modalities and the exact effects intended from each. It seems reasonable to suggest that the best protocols will result from a collaborative effort as individual therapists develop interventions, collect data, and report their findings on each consideration. Existing protocols can then be refined as we review the various approaches.

Manual therapy is an area that will require much detailed study. For example, to ascertain if physical therapists are able to manually stabilize an area sufficiently to eliminate any potential harmful motion when working with fusion patients fluoroscopic studies will probably be needed. Manual therapists have long struggled to describe their practice. Practice needs to be defined in terms that other medical professions, particularly surgeons, will understand. We would like their input on how our interventions may impact the surgical patient.

Much more work is needed to describe the effects of surgery alone on individual muscle groups as well as subsequent effects of specific types of exercises. Exercise is often not described in enough detail for therapists to duplicate in their clinics. Factors to be considered when selecting exercises include: types of contractions, joint and body positions, aspects of motions such as speed and range, and types of resistance.

With nerve irritation carefully documented, reporting is needed to describe the exact nature of postsurgical nerve pain patterns and successful treatments. Conventional and unconventional methods of treatment should both be reported since there is no consensus so far. Since much less is understood about nerve pain patterns and individual pain responses than other implicated components, less conventional means that work may be acceptable.

Ideally the physical therapist will work closely with the surgeon(s) in developing each protocol. Attending the surgery or viewing video tapes of the procedure is extremely helpful as it may provide details that can be useful to refine the protocol. Working in concert with the surgeon also enhances the probability of providing the patient with consistent information and reinforcement. The close alliance of physician and therapist benefits the patient and provides the best chance to continuously improve quality. The common goal of a well patient is best achieved by taking advantage of the resources of both. However, professionals still tend to work in isolation.

For example, in our geographic region neurosurgeons perform most of the cervical surgeries and a high percentage of the lumbar surgeries. As a group they tend to be less familiar with physical therapy than the orthopedic surgeons. Many times they do not consider physical therapy as an integral part of their practice. Frequent contact is therefore essential in initiating and gaining acceptance as a team member for therapists. Even in the most ideal practice, however, some surgeons remain uninterested or skeptical with regard to the role of physical management in patient recovery. Opening up the lines of communication among physical therapists and physicians, adopting prospective research methods, developing refined protocols, and reporting the results are all important steps in establishing the value of physical therapy and optimal outcome for the surgical spine.

Conclusion/Summary

This article is intended as a starting point in developing specific description of physical therapy management for the surgical spine patient. The summary outline can be applied to each surgical group to be sure to address all pertinent areas.

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SUMMARY

Considerations for postoperative protocols.

I. Disc protection.
   A. Posture, positioning, and support.
   B. Forces to heal the disc
      1. Decompressive forces with exercise and positioning.
      2. Gentle controlled movements in all planes to help rebuild the annulus.
   C. Modalities to accelerate disc tissue healing.

II. Ligamentous status/joint mobility.
   A. Assess and address level by level joint hyper- and hypomobility in the cervical, thoracic, and lumbar spine.
   B. Consider forces through exercise that may stimulate ligament rebuilding in the areas where ligamentous support has been lessened, ie. stabilization.
   C. Restore joint mobility in areas of restriction.

III. Bone integrity.
   A. Utilize forces such as compression to help improve the bone condition, with exercise and positioning.
   B. Consider modalities that may accelerate bone growth.
   C. Consider factors that may be detrimental to patient's bone healing and work to minimize these:
      1. Osteoporosis: calcium intake? Strength work?
      2. Smoking: smoking cessation.
      3. Poor bone condition:
         a. Attention to minimizing stresses that will interfere with the bone growth or healing such as too much motion in the area of the fusion.
         b. Maximizing support.
         c. Modalities to help facilitate bone healing.

IV. Muscular length and strength.
   A. Assess and address muscular length and strength problems in the trunk, hips, and shoulder girdle.
   B. Maximize oxygen delivery to muscles via aerobic exercise to provide the best environment for muscular rebuilding.
   C. Carefully describe exercises and intent of each term of strengthening, endurance, stretching, or motor control as well as which muscle(s) is (are) being targeted.

V. Nerve irritation or damage.
   A. Identify modalities that minimize symptoms.
   B. Identify the need for dural stretching and initiate if necessary.
   C. Educate the patient regarding positioning, support, and motions that may minimize nerve irritation.

VI. Soft tissue healing.
   A. Control swelling via ice, compression, or electrical stimulation.
   B. Soft tissue release to restore the normal mobility of the tissues in the surgical area and facilitate healing.
   C. Use modalities that may accelerate the soft tissue healing process.

VII. Body mechanics changes.
   A. Check carefully for proper posture that may or may not have altered as a result of surgery.
   B. Reinforce proper posture with all functional activities so that it becomes automatic.
   C. Address balance and coordination with strict attention to proper posture (motor control).
   D. Gait analysis.

VIII. Other pertinent health factors.
   A. Medication intake.
   B. Diet habits.
   C. Water intake.
   D. Vital signs.
   E. Daily walking distance.
   F. Amount of sleep per twenty four hours and general activity through the day.
   G. Calcium intake (for fusion patients).
   H. Smoking cessation.

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Carol McFarland owns McFarland Physical Therapy in Tyler, Texas. She is also a member of the OP Committee.

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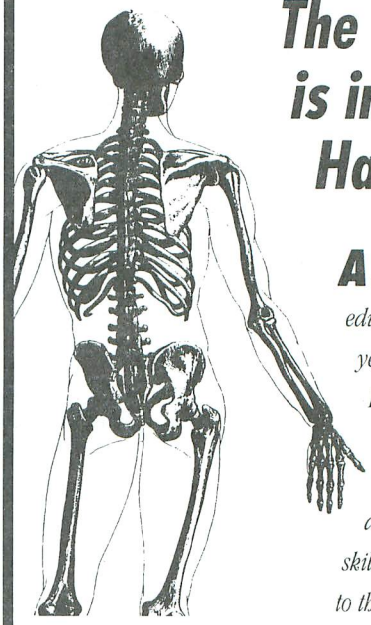

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RESEARCH COMMITTEE—COLORADO CHAPTER, APTA

SIMPLE GUIDE FOR CRITICAL REVIEW OF THE LITERATURE

By Karen Maloney Backstrom, MS, PT, OCS

QUESTIONS TO ASK

1. What was the purpose of the study? / What was the question being investigated?
2. Is the literature review supportive of the study in question and/ or does it state the need for such a study?
3. Is the methodology appropriate to the question?
   a. What type of study is it?
   b. Who were the subjects? and can the results from this subject population be applied across your population?
   c. What are the merits or limitations of the measurement tools and/or instrumentation used to answer the question?
   d. Is there a more valid measurement for this question?
   e. Have all of the variables been considered?
   f. Could this methodology be duplicated?
4. What was the statistical tool used?
5. Upon examining the results, did they answer the question?
6. Discussion
   a. Are the results discussed or are they just restated results?
   b. Are these findings related to the findings of other researchers?
   c. Do the authors discuss the limitations of this study / or do they tend to ignore possible limitations?
   d. Are there any conclusions stated that are not supported by the research?
   e. Are further study suggestions given?
7. What is the overall relevance of this study?
8. Will this study impact your practice? / Do the results have a positive or negative impact on your thinking and actions?

Editor's Note:
This is a continuation of the article "Why Isn't There More Clinical Research?" from the Spring '94, Vol. 6;2:94 issue of OP.

TYPES OF STUDY

I. DESCRIPTIVE

"What is/are the existing characteristics of the real world relative to the specific question?"

Qualitative—purpose is to study people within their social-cultural context.
Tools: philosophical analysis, historical methods, participant observation.

Nominal—purpose is to provide general approach to controlled observation.
Tools: case studies, direct observation.

Normative—purpose is to define average or typical characteristics of a sample.
Tools: retrospective data, examination of previously existing records.

Historical—purpose is to focus on past events, rather than present ones.
Tools: document analysis, document interpretations (validity, reliability).

Developmental—purpose is to describe a sequence of events over a long period of time.
Tools: series analysis of case studies, series analysis of survey instruments.

II. CORRELATIONAL

"To what extent do two (or more) characteristic(s) tend to occur together."

Correlational—purpose is to define through quantitative description the relationship between two variables.

Used to establish the test-retest validity and reliability.

Evaluates the degree of association between two variables.

III. PREDICTIVE (EXPERIMENTAL)

"To what extent do these variables relate to each other and how important is the difference if it exists."

Single-case Experimental Designs—purpose is to evaluate individual cases through repeated measurements to study the process of treatment as well as the end results.

Group Experimental Designs—purpose is to characterize groups in order to compare specific data sets and their relationships.

EX POST FACTO: A study design that literally studies something after the fact instead of manipulating an independent variable.

FREQUENCY DISTRIBUTION: An analysis method that involved determining how often scores or values appear in a data set.

HYPOTHESIS: Statement of relationship between two or more study concepts or variables.

INDEPENDENT VARIABLE: The conditions of factors that precede measurement of the dependent variable or are manipulated by the investigator. Also called the input variable.

INDIRECT RELATIONSHIP (INVERSE RELATIONSHIP): A negative relationship between two variables.

INFERENTIAL STATISTICS: Methods used to make inference about relationships and find statistical support for hypotheses in a population based on a sample drawn from it.

INTERNAL VALIDITY: In an experimental design, refers to whether or not manipulation of the independent variable really makes a significant difference to the dependent variable.

INTERVAL SCALE: A scale with numerical units that are assumed to represent quantity. The interval or distance between any two adjacent units on the scale is assumed to be equal to the interval between any other two adjacent units on the same scale. The interval scale has no fixed (rational, true) zero that represents zero quantity of the dimension of interest. Examples are temperature in degrees F or C, IQ, and most educational and psychological tests. The interval scale is used as if it represents quantity; each measurement is assigned a score (X). Obtained data (scores) may be subjected to all mathematical operations except that of forming ratios (e.g. 50 degrees C is not twice 25 degrees). Obtained data are conventionally subjected to parametric statistical tests (e.g. t-test).

MEAN: The measure of central tenden-

cy derived by dividing the sum of the the values in a data set by the total number of values, scores, or subjects in it. Also called the average.

MEDIAN: The measure of central tendency that corresponds to the middle score.

MODE: The category or class that has the highest frequency. A measure of central tendency.

NOMINAL SCALE: A scale with named or labeled categories that are not ordered or ranked, and within which the frequency of observations may be tallied. Permits the two most basic measurement operations: classifying observations along a dimension and counting the frequency (f) of the observations within each category. Examples are sex, side of hemiplegia, type of arthritis, and source of referral. Used to measure qualitative variables. Yields frequency (f) or headcount data that can be subjected to nonparametric statistical tests (e.g., chi square).

NONPARAMETRIC STATISTICS: Tests that can be used with nominal and ordinal data as well as when a sample size is too small to assume that a normal distribution exists in the population.

NORMAL CURVE: A symmetrical, unimodal distribution curve with greatest frequency of values at the center. Also called bell-shaped curve.

NULL HYPOTHESIS: Statement that no relationship other than chance exists between or among a study's concepts or variables. Represents the study hypothesis stated in reverse.

OPERATIONAL DEFINITION: Specifies what a researcher does to make a concept measurable.

ORDINAL SCALE: A scale with named or labeled categories that are ordered or ranked from most to least, best to worst, etc., and within which the frequency (f) of observations can be tallied. Examples are rating of strength, spasticity, and ADL performance. Numerals are sometimes assigned to the categories or ranks (e.g. 5,4,3,2,1,0 in the manual muscle test) but these numerals do not represent quantities; nothing is known about the size of the interval between any two such numerals. The ordinal scale permits classifying observations along the dimension of interest and counting the frequency (f) of observations within each category. Used to measure qualitative variables. Yields frequency (f) of headcount data that can be subjected to nonparametric statistical tests (e.g., chi square).

PARAMETRIC STATISTICS: Powerful statistical tests that are used with interval level data and normal distribution of a population.

POPULATION: (N) The total possible membership of the group being studied.

POST-TEST ONLY DESIGN: After-only experimental design in which subjects are assigned to an experimental and control group, but data are collected only at the end of exposure to the independent variable. Considered the simplest experimental design.

RANDOM SAMPLE: A sample selected according to one of the procedures for probability sampling that ensures that every element in a population has an equal chance of being included in the sample.

RANGE: Simplest measure of dispersion; represents the difference between the smallest and largest numbers in a distribution.

RANKING: Technique similar to sorting in which respondents are asked to rank order objects or stimuli on the basis of some property.

RATIO SCALE: A quantitative scale with all the properties of the interval scale plus a fixed (rational, true) zero. Examples are length, time, force, volume, and degrees of motion. Obtained data or scores (X) can be subjected to all mathematical operations, including that of forming ratios, and can be subjected to parametric statistical tests (e.g. t-test).

RELIABILITY: A quality of a research measurement instrument important in evaluating its worth. Means that the instrument produces consistent results or data on repeated use usually because the investigator has standardized the process for using it. Also used to describe data or study.

RESPONSE BIAS: The chance that the sample might not be representative of the population in a systematic way.

RESPONSE SET: The tendency to respond to items in a consistent manner based on irrelevant criteria.

SAMPLE (n): A subset of the population selected as sources for data.

SAMPLING ERROR: The fluctuation of a statistic from one sample to another drawn from the same population.

SINGLE SUBJECT EXPERIMENTAL DESIGN: Study that uses a single case but includes a reversal phase during which the intervention being tested is withheld while measures of the dependent variable continue.

SKEWED DISTRIBUTION: Frequency distribution with off-center peaks and longer tails in one direction.

STANDARD DEVIATION: The most widely used measure of variability when a frequency distribution approximates a normal curve. It is the average of the deviations from the mean.

STANDARD ERROR OF THE MEAN: The standard deviation of a theoretical frequency distribution of means of samples. The smaller it is, the more accurate a sample mean is as a reflection of a population mean.

STANDARD SCORE (z-score): Refers to how many standard deviations away from the mean a particular raw score is.

TEST-RETEST *RELIABILITY*: Method for establishing reliability by administering an instrument on two or more occasions to the same respondents.

THEORY: A set of interrelated constructs or propositions that present a systematic explanation of phenomena. A vision or truth or reality.

UNIMODAL FREQUENCY: A frequency distribution with only one high point.

VALIDITY: Does the test or instrument measure what it is supposed to measure?

VARIABLE: Something that varies and has different values that can be measured. Results from operationally defining a concept.

VARIANCE: A descriptive statistic that examines how scores or values in a data set are distributed.

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RESEARCH ISSUES IN ORTHOPAEDIC PHYSICAL THERAPY

By Daniel Riddle, MS, PT

The Research Committee of the Orthopaedic Section is initiating a new column which will appear regularly in *Orthopaedic Physical Therapy Practice (OP)*. The purpose of "Research Issues in Orthopaedic Physical Therapy" is to provide a forum for communicating with members about relevant research issues and needs. This is the first of what the Research Committee hopes will be a long series of columns addressing various issues related to clinical research in orthopaedic physical therapy. The committee is unanimous in the belief that one of our primary roles in the Section is to educate the membership about not only the importance of research but also some of the nuts and bolts of actually doing the research. We hope this column will be one avenue that we can use to inform and enlighten the membership about some of the very important and timely research issues in orthopaedic physical therapy. We also hope that the information contained in these columns will aide clinicians in achieving some of their research goals.

We will address many topics in future columns. In the next issue, Paul Beattie will discuss the main barriers to clinical research and how to overcome them. It has been the experience of the Research Committee that many clinicians avoid clinical research because of a variety of reasons. Paul will discuss some of these barriers and some possible ways of dealing with them.

Future columns will also discuss other topics. Our literature lacks an adequate number of well written case studies of patients with musculoskeletal problems. Case studies serve as the basis for more sophisticated studies and are fundamental to our understanding of patient care. Phil McClure, an experienced writer of case studies, will discuss the need for case studies and elaborate on some of the essential ingredients of a sound case study.

Another topic we will address is one that has intimidated all of us at one time or another. One of the most difficult and at times frustrating aspects of interpreting published literature is understanding the data analysis that was done. The statistical analysis section of an article can many times impede a clinician's ability to accurately interpret published research not only for use in clinical practice but also for clinical research. Mark Wiegand will attempt to de-mystify the interpretation of the data analysis used in published research by discussing the uses and misuses of statistical tests that are frequently used in articles.

Some clinicians avoid clinical research because of the legal implications of using patients in a study. The prospect of performing clinical studies can be intimidating because of ethical and legal concerns. Kent Timm will discuss some of the legal and ethical issues therapists should address when planning clinical research. Another issue to be discussed in a future column is the area of outcomes research in orthopaedic physical therapy. Perhaps one of the most popular forms of research now being done is outcomes research. Our own journal, *Physical Therapy*, has just devoted an entire issue to the topic of physical disability which is the cornerstone of our profession. Measures of physical disability are probably the most common type of outcome measurement and arguably the most meaningful form of outcome measurement in Physical Therapy. Daniel Riddle will discuss some of the issues to be considered when planning a study of outcomes in orthopaedic physical therapy.

These are just some of the topics we will be addressing in future issues of *OP*. We hope that the membership finds these columns useful. We also hope that you will write back to us and make comments about the content of the columns or to suggest topics for future columns. The Research Committee hopes these columns serve as a stimulus for establishing a dialogue with the membership about research issues in orthopaedic physical therapy. We would like to publish letters we receive to provide the readership with additional information on the topics that are discussed. Following each column the readership will be invited to comment on the content of the column. We will then publish the letters from the readership in future columns of "Research Issues in Orthopaedic Physical Therapy."

If you would like to comment on this column or future columns of "Research Issues in Orthopaedic Physical Therapy" please write to:

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Rochester, NY 14623 716/292-5060
Specialty Area(s): spine, general orthopaedics, sports medicine

Phil McClure, PT
Hahnemann University
MS 502
Broad & Vine
Philadelphia, PA 19102 215/762-8639
Specialty Area(s): orthopaedics, biomechanics, cervical spine, shoulder

Tom McPoil, PhD, PT, ATC
Department of Physical Therapy, N.A.U.
Box 15105
Flagstaff, AZ 86011
Specialty Area(s): gait analysis, research design, foot and ankle

Dan Riddle, PT, MS
Dept. of Physical Therapy
Box 224, MCV Station
Richmond, VA 23298 804/225-4544
Specialty Area(s): measurement issues in orthopaedics, foot and ankle, shoulder

Malton Schexneider, PT
6400 Dutchmans Parkway, Ste 20
Louisville, KY 40205 502/897-0100
Specialty Area(s): orthopaedics, spine, upper quarter

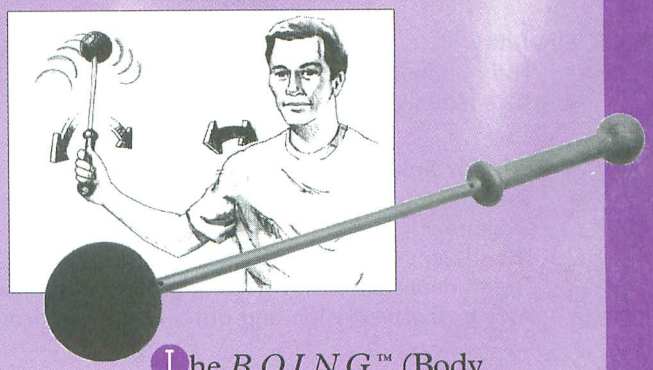
Elaine Thompson, PhD, PT, OCS
University of Pennsylvania Medical Ctr
1 White, 3400 Spruce Street
Philadelphia, PA 19104
Special Area(s): ankle/foot, orthopaedics, gait

Kent Timm, PhD, PT, OCS
St. Luke's OSF
600 Irving Avenue
Saginaw, MI 48602 517/771-6355
Specialty Area(s): isokinetics, spinal orthopaedics, sports medicine, research design

Mark Wiegand, 1, PhD
Physical Therapy Program-HSC
University of Louisville
Louisville, KY 40292 502/588-7816
Specialty Area(s): somatosensory, anatomy

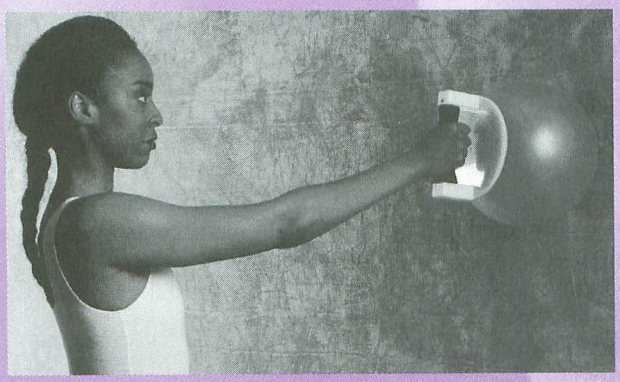
exercise REHABILITATION

only **OPTP** *gives you more innovative* **SHOULDER** *rehab options*



The *UE* Board & Ball*™ pairs a hand-held disk with an inflatable ball for active and reactive closed-chain exercises, stabilization and resistive exercises, and joint stabilization exercise at the wrist, elbow and shoulder. The UE* Board & Ball facilitates functional grip-dependent skills and promotes proprioception and kinestic awareness.

The *B.O.I.N.G.*™ (Body Oscillation Integrates Neuromuscular Gain) is an exercise device that provides resistance as it oscillates. B.O.I.N.G. employs muscular contraction of the wrist, elbow, shoulder joint/girdle, trunk and lower extremities, providing a combination of Isotonic, Isometric and Plyometric Resistance in both closed and open chain environments.



Exclusively from OPTP, the A-T Bar™ (Activity Training) assists the patient in performing frequent ROM shoulder repetitions, moving the joint to end range while stretching non-contractile structures such as the capsule, ligaments and post surgical scar tissue—stretches necessary for remodeling to occur.

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CIRCLE 117 ON READER SERVICE CARD

OUTSTANDING PT STUDENT AWARD
&
OUTSTANDING PTA STUDENT AWARD

Purpose

1. To identify a student physical therapist (first professional degree) with exceptional scholastic ability and potential for contribution to orthopaedic physical therapy.
2. To provide the means for an exceptional student to attend and participate in a national meeting, with the intention that this exposure will encourage future involvement in Orthopaedic Section activities.

Eligibility

1. The nominee must be currently enrolled in a PT or PTA program.
2. The nominee must be a member of the Orthopaedic Section, APTA, Inc.

Criteria for Selection

1. The student shall excel in academic performance in both the professional and prerequisite phases of their educational program.
2. The student shall demonstrate exceptional nonacademic achievements, representing initiative, leadership, and creativity.
3. The student shall be involved in professional organizations and activities that provide the potential growth and contributions to the profession and orthopaedic physical therapy.

Procedure for Nomination

1. Any member of the Orthopaedic Section may nominate candidates for this award.
2. One original set and four duplicates of all materials submitted for each nomination must be received by the Executive Director at the Section office by November 1, for consideration for the award in the following year.
3. The materials submitted for each nomination shall include the following:
   a. A support statement from the nominator, highlighting reasons for the nomination and clarifying the relationship between the nominator and nominee.
   b. A support statement from two faculty members in the educational program in which the nominee is enrolled.
   c. Support statements from one faculty member outside of the PT or PTA department.
   d. Support statements from at least two student colleagues.
   e. A resume and cover letter from the nominee detailing previous health care experiences, honors and awards, evidence of service activities, and participation in professional activities.
4. The nomination materials should document examples of how the nominee fulfills the criteria for this award.

Procedure for Review and Selection

1. Nomination materials shall be submitted to the Section office. The Section office will retain the original set of materials and will provide the Awards Committee with copies for their review.
2. The Awards Committee will review the nominations and recommend the most qualified candidate to the Executive Committee.
3. The award will be presented only if there are qualified candidates, and one is selected.
4. Nomination materials are considered the property of the Awards Committee, who will maintain their confidentiality.
5. Nomination materials will be not be returned. If any individual is not selected for the award in a given year, that individual may be nominated in a subsequent year. New nomination materials must be submitted in subsequent years.

Notification of Award

1. The Section President will notify the recipient by December 1st and obtain written confirmation of acceptance by December 15.
2. The nominators of individuals not selected will receive a letter thanking them for their participation and informing them of the award recipient.
3. The confidentiality of the Outstanding Student Award will be maintained until the recipient has been notified.

The Award and Its Presentation

1. The Orthopaedic Section will reimburse the recipient for round trip coach airfare from any site in the United States or Canada to the APTA Combined Sections Meeting, four days per diem, and conference registration.
2. The student will receive a certificate suitable for mounting.

How Much Risk Can You Tolerate—And How Do You Know?

By Tom Berkedal

In my last column, we explored the various forms of risk that investors face, including capital risk, interest-rate risk, reinvestment risk, tax risk and opportunity risk. In today's investment environment we want to play it safe, but we can't avoid taking any risk at all. So instead of trying to avoid risk, we need to concentrate on learning to manage risk.

A key part of managing risk is deciding your "risk tolerance." Risk tolerance doesn't mean how much risk you are willing to take, but rather how much you should or can take based on your situation. Consider the situations of two investors—we'll call them Rita and Sam.

RISKY RITA

Rita is one of those people who thrives on risk. Her hobby is sky-diving, and when it comes to her investments, she says she is willing to take maximum risk to achieve maximum reward. Since Rita is 33 years old, she figures she has many years to work. In her mind she has plenty of time to make up any losses her aggressive investment style might bring her.

Rita would probably describe her risk tolerance as "high." A good investment adviser, however, might suggest to Rita that her real risk tolerance is "moderate." Emotionally, Rita has no trouble risking all her capital, but should she do it? She might be better off moderating her inclination to risk and protecting a portion of her capital. After all, it's always a possibility that Rita could lose her job or become disabled during a sky-diving jump.

SAFE SAM

On the other extreme is Sam, who wants to avoid risk at all cost. His efforts to avoid losing any money at all have worked, but at the expense of low or even negative overall returns. At the age of 68 Sam depends on the interest income from his investments. He has already cut back on travel plans and dining out, and he's begun to worry that low interest rates will force him to spend down his life's savings and ultimately lower his standard of living.

If you asked Sam what his risk tolerance was, his response would be "none." An investment adviser, however, might tell Sam that his risk tolerance is "low" — but definitely not zero. Unless Sam increases his capital risk slightly, inflation may eventually rob him of any financial security he has now, especially if interest rates remain low.

WHAT ABOUT YOU?

Enough about Rita and Sam. How do you assess your own risk tolerance? You might start by asking yourself some questions:

1) What are your financial goals and how long do you have to reach them? If you have 25 years before you retire, you may be able to handle more risk. If you need your money in five years, your risk tolerance may be low no matter how personally daring you are.
2) Do you have other sources of money to achieve your goals? If so, capital risk may be somewhat more tolerable. If not, be careful.
3) What level of risk are you comfortable with? You can't ignore this key factor. For example, the stock market's ups and downs can be worrisome. Only you can decide how much of that you can tolerate.

Assessing your risk tolerance is an important part of your investment planning, a part you won't want to ignore. Remember, risk is unavoidable. Understanding risk and understanding your own tolerance for risk will help you manage it.

Tom Berkedal is an Investment Executive who provides investment advice to the Orthopaedic Section, APTA.

If you would like additional information, please contact Tom through the Orthopaedic Section office.

PARIS DISTINGUISHED SERVICE AWARD

PURPOSE

1. To acknowledge and honor a most outstanding Orthopaedic Section member whose contributions to the Section are of exceptional and enduring value.
2. To provide an opportunity for the recipient to share his or her achievements and ideas with the membership through a lecture presented at an APTA Combined Sections Meeting.

ELIGIBILITY

1. The nominee must be a member of the Orthopaedic Section, APTA, Inc., who has made a distinguished contribution to the Section.
2. Members of the Executive Committee and members of the Awards Committee shall not be eligible for the award during their term of office.

CRITERIA FOR SELECTION

1. The Nominee shall have made substantial contributions to the Section in one or more of the following areas:
   a. Demonstrated prominent leadership in advancing the interests and objectives of the Section.
   b. Obtained professional recognition and respect for the Section's achievements.
   c. Advanced public awareness of orthopaedic physical therapy.
   d. Served as an accomplished role model, and provided incentive for other members to reach their highest potential.
   e. Utilized notable talents in writing, teaching, research, administration, and/or clinical practice to assist the Section and its membership in achieving their goals.
2. The nominee shall possess the ability to present a keynote lecture, as evidenced by:
   a. Acknowledged skills in the organization and presentation of written and oral communications of substantial length.
   b. Background and knowledge sufficient.

PROCEDURE FOR NOMINATION

1. Any member of the Orthopaedic Section may nominate candidates for the award.
2. One original set and four duplicates of all materials submitted for each nomination must be received by the Executive Director at the Section office by December 1, for consideration for the award in the following year.
3. The materials submitted for each nomination shall include the following:
   a. One support statement from the nominator, indicating reasons for the nomination, and clarifying the relationship between the nominator and nominee.
   b. Support statements from two professional colleagues.
   c. Support statement from two former or current Orthopaedic Section officers or committee chairs.
   d. The nominee's curriculum vitae.
4. The nomination materials should document examples of how the nominee fulfills the criteria for this award.

PROCEDURE FOR REVIEW AND SELECTION

1. Nomination materials shall be submitted to the Section office. The Section office will retain the original set of materials and will provide the Awards Committee with copies for review.
2. The Awards Committee will review the nominations and recommend the most qualified candidate to the Executive Committee.
3. The Executive Committee will select the recipient.
4. Any member of the Awards or Executive Committees, who is closely associated with the nominee, will abstain from participating in the review and selection process.
5. The award will be presented only if there are qualified candidates, and one is selected.
6. Nomination materials are considered the property of the Awards Committee, who will maintain their confidentiality.
7. Nomination materials will not be returned. If any individual is not selected for the award in a given year, that individual may be nominated in subsequent years. The Section office will retain nomination materials for two years.

LECTURE

1. The recipient will present their lecture at a Section "Awards Session" at the APTA Combined Sections Meeting. The lecture should not last longer than thirty minutes.
2. The title of the lecture will be left to the discretion of the recipient.
3. The lecture should focus on the recipient's ideas and contributions to the Section and orthopaedic physical therapy.
4. The recipient will be invited to submit a written copy of the lecture for publication in the Section's official publication, *JOSPT*.

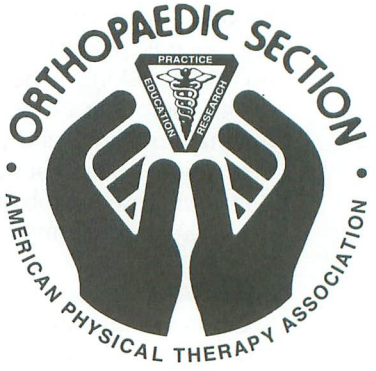
NOTIFICATION OF THE AWARD

1. The President of the Section will notify the recipient by April 1st and obtain written confirmation of acceptance by May 1st.
2. The name of the recipient will be kept confidential until announced at the APTA Annual Conference.
3. The award will be presented at the APTA Combined Sections Meeting following presentation of the lecture.
4. Those nominees not selected will be so informed in writing.
5. The nominators of individuals not selected will receive a letter thanking them for their participation and informing them of the award recipient.

THE AWARD AND ITS PRESENTATION

1. The Orthopaedic Section will reimburse the recipient for round trip coach airfare from any site in the U.S. or Canada to the Combined Sections Meeting at which the lecture is presented, two days per diem consistent with the Section's current reimbursement rates and one day's conference registration.
2. On the occasion of the presentation of the lecture, the awardee will receive an appropriate plaque and an honorarium of $250.
3. The recipient's name and date of award will also be inscribed on a Distinguished Service Lecture Award plaque that is retained and displayed in the Section's headquarters.

Please submit any nominations to the Section office by December 1, 1994.



AWARD FOR EXCELLENCE IN TEACHING OF ORTHOPAEDIC PHYSICAL THERAPY

PURPOSE

To recognize and support excellence in instructing OPT principles and techniques through the acknowledgment of an individual with exemplary teaching skills.

ELIGIBILITY

1. The nominee must be a member in good standing of the Orthopaedic Section of the APTA. The nominee must have taught or presently be teaching either physical therapy or physical therapy assistant students the principles and clinical applications of Orthopaedic Physical Therapy for five years or more.
2. The nominee may be either a faculty member (full-time or adjunct) or a clinical instructor of an accredited physical therapy or physical therapy assistant program.
3. Members of the Section Awards Committee are excluded from eligibility during their term of office.

CRITERIA FOR SELECTION

The Awards Committee will consider the following as guidelines in the selection process:

1. The instructor devotes the majority of his professional career to student education.
2. The instructor teaches from a sound, comprehensive, and current knowledge base, integrating basic science with the principles of orthopaedic physical therapy.
3. The instructor demonstrates excellence in instructional methods, presentation techniques, planning and organizational skills, and the ability to motivate students.
4. The instructor serves as a mentor and role model with evidence of strong student rapport.
5. Teaching materials are innovative and well-designed.
6. Instructional techniques are intellectually challenging and promote retention or necessary knowledge and skills.
7. The instructor demonstrates an ability to relate academic knowledge to clinical practice.
8. The instructor displays objectivity in the evaluation and presentation of ideas, hypotheses, and concepts.
9. The instructor is receptive to student and peer feedback.

PROCEDURE FOR NOMINATION

1. Any member of the Orthopaedic Section may nominate candidates for the award.
2. One original typewritten set and four duplicates of all materials submitted for each nomination must be received by the Administrative Director at the Section office by December 1 for consideration for the award in the following year.
3. The materials to be completed and submitted for each nomination shall include the following:
   a. A support statement from the nominator, highlighting reasons for the nomination and clarifying the relationship between the nominator and nominee.
   b. A support statement from at least one faculty member from all physical therapy or physical therapy assistant educational programs with which the nominee is affiliated.
   c. Support statements from at least two professional colleagues.
   d. Support statements from at least two current and/or former students. If the nominee is a clinical instructor, the clinical education experience must be full-time for a minimum of six weeks.
   e. The nominee's curriculum vitae.
4. The nomination materials should document examples of how the nominee fulfills the criteria for this award.

PROCEDURES FOR REVIEW AND SELECTION

1. Nomination materials shall be submitted to the Section office. The Section office will retain the original set of materials and will provide the Awards Committee with copies for review.
2. The Awards Committee will review the nominations and recommend a recipient to the Executive Committee.
3. Any members of the Awards Committee who are closely associated with the nominee will abstain from participating in the review and selection process.
4. The award will be presented only if there are qualified candidates, and one is selected.
5. Nomination materials are considered the property of the Awards Committee, who will maintain their confidentiality.
6. Nomination materials will not be returned. If any individual is not selected for the award in a given year, that individual may be nominated in a subsequent year. New nomination materials must be submitted in subsequent years.

NOTIFICATION OF AWARD

1. The recipient of the award will be notified by the Section president.
2. Those nominees not selected will be so informed in writing.
3. The nominators of individuals not selected will receive a letter thanking them for their participation and informing them of the award recipient.
4. The confidentiality of the Excellence in OPT Teaching Award will be maintained until the recipient has been notified.

THE AWARD AND ITS PRESENTATION

1. The Orthopaedic Section will reimburse the round trip coach airfare from any site in the United States or Canada to the APTA Annual Conference Meeting site, two days per diem, consistent with the Section's current reimbursement rates and one day's conference registration.
2. The award will consist of an appropriate plaque and a $250.00 honorarium.
3. The award will be presented at the APTA Annual Meeting (CSM) by the Chair of the Awards Committee.

WELCOME NEW MEMBERS

The Orthopaedic Section, APTA, Inc., would like to welcome all of our new students, affiliate and active members who have joined the Section within the last three months:

Donna Abbott
Julie Adams
Rizalina Aland
Nilo Alday
Cynthia Allred
Stella Alston
Virginia Alvaro
Patricia Ammon
Archana Anant
Jill Anderson
Mary Apa-Ap
Kim Archer
Jean Armbruster
Catherine Armstrong
Andrea Assante
Leonora Assing
Katie Averna
John Bach
Deborah Bahr
Kathy Baker
Allison Banks-Holmes
Iuliu Barbat
David Barr
Rene Bates
Edna Bay
James Beam
Debra Beatty
Robert Beaugh
Tara Beckerer
David Benedetto
Lacrissa Bennett
Jane Berdahl
Harold Berg
Bradley Bills
Scott Bilyeu
Robyn Bjork
Angela Black
Joyce Boardman
Ira Bond
Marissa Borromeo
Angela Bostic-Maddox
Matina Bouboulis
Russell Bouldin
Stephanie Brackett
Susan Bradley
Laura Brantly
Sara Bresnick
Jacqueline Brown
Myrna Brown
Stanley Brown
Holly Bryant
Maria Brzazgon
Denise Buher
Christopher Burns
Thomas Burruss
Craig Butturiff
Karen Caliendo
Michael Cameron
Frances Camilleri
Susan Carr
Jennifer Castillo
Tammy Caudell
Marc Cecchini
Wendy Chambers-Lance
Kim Champine

Teresa Chappell
Mary Charles
Monika Charlesworth
Kimberly Charlick
Jena Chen
Chia -Ling Chen
Ann Chernoch
Vincent Cheshire
Dan Chilcoat
Mike Chrisman
Laurie Cicale
Gina Cigala
Thomas Clinton
Leslie Clodfelter
Laura Collins
Nancy Collins
Roger Colvin
Jorgina Commers
Vincent Conca
Sergio Conlv
Heidi Connor
Joseph Corbelli
Anita Correa
Gary Corso
Cecil Cosio
Melinda Couch
David Cramp
Scott Crawley
Lori Crisswell
Deborah Croft
Croll Carol
Deboarh Culmone
Norma Curulla
Claudia D'Angotino
Kristin D'Orso
Kathleen Dahnke
Noel Dalman
John Damaso
Anthony Damiano
Stephanie Danile
Bhalchandr Daulat
Pamela Daves
Thomas Davis
Angela Davis
Jon Davis
Teresa Deblieck-Jones
Richard Dekok
Eric Delke
Marybeth Denardo
John DePalma
Anup Dhage
Johanna Doll
Carolyn Dominguez
Karen Donahue
Robert Dowling
Debra Downen
Christina Downes
Hans Driesman
Lori Drotman
Michele Drueger
Tammy Duffield
Betty Duncan
David Edwards
Jo Anne Ellingsen
Kasey Epping

Ian Erickson
Randy Eskenzai
Merrie Evans
Patricia Evans
Joyce Fairbanks
Jeffrey Farinha
Sydney Farris
Marc Favieri
Ginger Flach
Christopher Flammia
Debra Fleming
August Flick
David Fluech
Michael Folsom
Sharon Foreman
Laura Fox
Yvette Francis
Robert Frank
Lorri French
Beth Fudala
Elizabeth Fulford
Kay Funderburg
Janusz Furman
Douglas Fye
Caroline Gaver
Bernadette Gerfasi
Mignon Gery
Lori Giacoletti
Tonya Gibson
Maureen Gillis
Carrie Glaza
Leslie Glenn
Lee Glover
Christa Godston
Lester Goetz
Steven Goldstein
Kellie Gomas
Weilyn Goo
Andrew Goodrow
Danvta Gornecki
Janne Gram-Hanssen
Leslie Gray Jr.
Christina Greenwood
Christopher Gurdjian
Ikram Hag
Stephanie Hahn
Jeffrey Hajduk
William Hall
Sandra Halter
Karen Hamid
Patricia Hamilton
Margaret Hamm
J'Lynn Hankins
Norma Haskew
Teresa Hayden
Dale Hazard
Hendrika Hekker
Kirsten Henderly
Suzanne Henry
Cynthia Hill
Kathleen Hintz
Winifred Holcomb
Rex Holland
Carla Holmen
Edward Holmes

Mark Hroma
Karen Huggins
Naomi Hunt
Diana Hunter
Denise Hurm
Julie Huss
Lynn Ingalls
Krista Inman
Erika Jacob
Marty Jaramillo
Murugavel Jayaprakash
Laura Jimenez
Scott Johnson
Karen Johnson
Tracy Jones
Sharon Jones
Brian Joyner
Valerie Kaczowka
Lynn Kanda
Ellen Kass
Liberty Kauders
Kathy Keele
James Kelley
Donna Kelly
Rebecca Kelty
Colleen Kennedy
Jeffrey Kepner
Terry Kerestes
Alison Kichar
Virgina Kimpel
Sharon King
Marcy Kish
Elizabeth Kliss
Henen Klonowski
Charolotte Knesek
Judy Kolb
Chris Kopp
Karen Kotz
Christina Kovacs
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Elizabeth Kulas
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Nancy Labie
Gary Lachapelle
Beth Langol
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Richard Latimer
Rachel Latz
Sherry Launt
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Linda Leonard
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Chun Li
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Anne Lien
Susan Lilly
Chun-Pin Lin
Arja Lindholm

Lori Lindsey
Amy Littleton
Rhoda Long
Claudia Lory
Sue Lott
Jenni Love
Debra Ludwig
Joel Lyons
Jo-Ann Macapinlac
Jeff MacNaughton
Patricia Mader
Stephane Maertens
Ingrid Magnusson
John Majerus
Carolyn Malik
Peter Maloney
Philip Maiscalco
Nora Marceau-Cascardo
Stephanie Marceaux
Jane Marques
Karen Martinchek
Mohammed Masha
Michael Massaro
Amy Masse
Dana Matkovic
Wade Matsuura
Salim Mazhar
Loretta McClintock
Nancy McCormick
Ernest McCormick
Sharon McDonald
Trilva McDonald
Amy McDowell
Lorien McElrath
Mary McGrath
Kimberly McHatton
Richard McKibben
Joseph McVein
Kevin McWilliams
Daniel Meister
Luis Mejia
YolandaMelandez
Anthony Mencucci
Linda Messing
Linda Meyer
Jean Mikle
Julie Milem
Cindy Milhollin
Jerri Miller
Karen Miller
Susan Moldt
Kathleen Moore
Franck Morosky
Michelle Morrow
Dawn Morse
Max Morton
Nicole Motz
Jacquelyn Mulshine
Anne Marie Murphy
Somasundaram Muthuraju
Gail Nagel
Diana Nagheti
Patricia Nakagawa
Dale Nakatani
Ruby Nakka

Bret Nattress
Margaret Neal
Leeann Nelson
Frances Nelson-Berst
Pamela Nichols
John Nicholson
Redentor Nicolas
Bridget Niemerg
Lorie Niesz
Marcia Nodwell
Tonya Norris
Sheila O'Neill
Sara Ochoa
James Oefelein
Scott Ogren
Jimmy Olores
Rick Orlandoni
John Ottens
Myrna Pagan
Paula Paisley
Dorothy Panzenbeck
Caryn Papiro
Sandra Parker
Robert Paull
Cynthia Pautler
Eleanor Pearlman
Denise Peasant
Chris Perillo
Charles Peters
Julie Pickle
Sandra Picurro
Dianne Pierson
Christopher Pifer
Phillipe Poget
Tami Pohnert

Erin Poole
Marcelo Porto
Carol Powell
Marcy Power
Mary Powers
Cathy Prusha
Harry Purdy
Sharon Purkis
Michael Quinn
Madeleine Raffler
Carleen Rahn
P Ralston
Gaye Raymond
Cynthia Rechenmacher
Sarah Reid
Linda Reynolds
Robert Rhodes
Stephanie Rhodes
Howard Rice
Jennifer Riley
Kjell Risung
Geralynn Ritz
Joel Robb
Jane Robbins
Patricia Rode
Noemi Rodgers
Vivina Rodriguez
Noemi Rogales
Nancy Rohauer
Ian Ross
Mary Rossi
Kathleen Roth
Pierre Rougny
Kelly Rowell
Robert Russell

Mikelle Sacco
Benu Sachdeva
Victor Sackett, III
Christina Sampsonis
Jo Ann Sanifer
Doreen Sands
Diane Sangree
Carolyn Sarantakis
Marina Sasonov
Rachel Saunder
Carolyn Saunders
Joselito Sayson
Christie Scala
Jennifer Schaub
Linda Scheffel
Eileen Schmidlin
Holly Scroggins
Robb Seahorn
Diane Seewald
Gladys Serrano
Rachel Shand
Rebecca Sharun
Joslyn Sheldon
Richard Sidor
Paul Simica
Fred Smit
Diane Smith
Kristin Smith
Sandie Smith-Schoeborn
Holly Smukler
Michelle Snyder
Debra Sojka
Sheryl Somrak
Erik Speer
Julie Spurgeon

Catherine Staniech
Nancy Stanley
Randall Stark
Kathy Stepien
Amy Stone
Kathleen Stransky
Sally Street
Jeanine Stuart
Rudolf Steirenberg
Kathleen Stupansky
Joy Sutton
Brent Swartlander
Sandra Szymanski
Grant Takiguchi
Bruce Takii
James Tan
William Tatu
Isabel Tellez
Timothy Terrio
Pamela Thomasson
James Thurman
Renae Torkelson
Joanna Totten
Rex Town
Yung-Yuh Tsai
Chih-Min Tsou
Patricia Turczany
Michael Turner
Nancy Tutt
Hermenio Uly
Carmen Vazquez
Gilberto Vazquez
Lesli Vickers
Bodo Voegels
Laura Voss

Christopher Walker
Joanne Wall
Mark Waller
Lauren Warden
Brian Weeda
Susanne Weidner
Anne Weigell
Marybeth Weinacht
Shelly Weis
Gloria Weisensee
Peggy Welsh
Evelyn Whitehead
Susan Whittle
Robert Wichlacz
Carolyn Wilkins
Robert Williams
Kathy Williams
Donna Wolf
Jane Wolf
Dee Wolf
Kery Wood
Karen Woods
Joceline Woodward
Anupama Worah
Mike Worley
Lisa Wyland
Jon Yonago
Karen Young
Patricia Zeitler
Bonnie Ziegelstein

PRACTICE PROBLEMS??

The Practice Committee of the **Orthopaedic Section** needs to know your problems! Your input will define practice issues of importance to you as physical therapists in the area of orthopaedic physical therapy.

Please write, call or fax the issues you need to have addressed and resolved. Spending a few moments to share your problems may well be one of the better uses of your time today! Your voice will be heard if you speak up.

Telephone: 800-444-3982
FAX: 608-784-3350

Scott Stephens, MS, PT
Orthopaedic Section, APTA, Inc.
Practice Committee
505 King Street, Suite 103
La Crosse, WI 54601

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

Daytime Telephone #: (_____) _____

In my practice, I'm having trouble with _____

_____

Please get in touch with me to discuss _____

_____

_____

RESEARCH COMMITTEE OF THE ORTHOPAEDIC SECTION
APTA, INC.

CALL FOR PARTICIPANTS

PLATFORM AND POSTER PRESENTATIONS
APTA COMBINED SECTIONS MEETING
RENO, NEVADA, FEBRUARY 8-12, 1995

Persons wishing to make platform or poster presentations of research dealing with topics related to orthopaedics (basic science, applied sciences and clinical sciences) are invited to submit abstracts for consideration.

LIMITATIONS:
Presenter must be a current member in good standing of the Orthopaedic Section of the APTA, Inc. or must be sponsored by a current member in good standing of the Orthopaedic Section.

Each prospective presenter may submit no more than two abstracts. These abstracts must contain original material and may not have been presented at any national meeting or published prior to the 1995 CSM. Authors presenting accepted abstracts at the meeting must register for the day they are presenting.

SUBMISSION REQUIREMENTS:
Deadline for Receipt of Abstract: Abstract must be received at the address below by September 1, 1994. Address abstract to:

Daniel L. Riddle, MS, PT
Research Committee Chair
Orthopaedic Section, APTA
c/o Department of Physical Therapy
Virginia Commonwealth University
McGuire Hall, 1112 East Clay Street, Rm. 209
Box 980224, MCV Station
Richmond, VA 23298-0224

Format for Abstracts: The abstract must be typed double-spaced on one side of a single 8 1/2'' x 11'' sheet of paper. The type must be 10 point or larger and produced on an electric typewriter, letter quality printer (impact or laser), or a high quality dot matrix printer with near-letter-quality type. The abstract must use standard abbreviations and should not contain subheadings, figures, tables of data, or information that would identify the authors or the institution. Margins for BODY of the text must be 1'' on all sides.

The identifying information must be single-spaced in the 1'' top margin and include: 1) the title in capitalized letters, 2) the full name(s) of the author(s) with the presenter's name underlined, 3) the place where the work was done, 4) the address of the presenter enclosed in parentheses, and 5) acknowledgement of any financial support for the work being presented.

In the lower left margin, type single-spaced: 1) the APTA membership number of the presenter (or name and membership number of APTA member/sponsor if the presenter is not an Orthopaedic Section member), and 2) the telephone number and area code of the presenter. In the lower right margin be sure to indicate the preferred mode of presentation (Platform or Poster) and the type of content (see below).

Copies: Include one original and one copy of the complete abstract with all the identifying information as outlined above. Include five copies of the abstract with only the title and the body of the text (eliminate all identifying information except the title).

CONTENT:
RESEARCH reports must include in order: 1) purpose of study; 2) hypothesis, if appropriate; 3) number and type of subjects; 4) materials and methods; 5) type(s) of data analysis used; 6) numerical results of statistical test(s) where appropriate; 7) conclusion; and 8) clinical relevance.

SPECIAL INTEREST reports must present a unique program, idea, or device and must include: 1) purpose of the presentation, 2) description, 3) summary of experience or use, and 4) the importance to members of the Orthopaedic Section.

THEORY presentations must: 1) state the phenomenon that the theory proposes to explain or predict, 2) explicitly state the theoretical proposition or model, 3) give the evidence on which the theory is based, 4) suggest ways that the theory could be tested, and 5) describe the importance and utility of the theory to the Orthopaedic Section.

EVALUATION AND SELECTION:
All abstracts are reviewed by members of the research committee without knowledge of the identity of the authors. Abstracts are selected on the basis of compliance with the content requirements, logical arrangement, intelligibility, and the degree to which the information would be of benefit to the members of the Orthopaedic Section. All selections are final.

PROFESSIONAL SHARING AT ITS FINEST:
THE ORTHOPAEDIC SECTION'S MENTOR PROGRAM

The Mentor Program is a special form of continuing education. The program provides physical therapists with the opportunity to work one-on-one with an accomplished orthopaedic physical therapist. Most therapists haven't had such an opportunity for clinical supervision and feedback since they were entry-level physical therapy students!

The idea for the Mentor Program came from a group of Orthopaedic Section members who were interested in helping orthopaedic physical therapists advance their clinical skills in areas of special interest. The Mentor Program developed as a way to draw on the vast resources of clinical expertise among practicing clinicians. The Orthopaedic Section's role in the Mentor Program is solely to facilitate networking between mentors and potential mentees.

Mentors are physical therapists who are willing to invite motivated physical therapists into their clinics for intensive, individualized clinical training. The mentors, some of whom are Board Certified Clinical Specialists, have specific skills in a variety of areas. A mentee can choose a general orthopaedics experience, or can arrange to work with a mentor who specializes in some area.

Therapists who are looking for a way to advance their skills in clinical decision making and receive individualized feedback on their use of evaluation and treatment techniques, should consider participating in the Mentor Program.

To become a mentee:

1. Consult the mentor list to select your choice(s) for mentor(s) based on geographical location and specialty areas.

2. Contact the Orthopaedic Section at 800/444-3982 and ask for a detailed description sheet on the mentor(s) you are considering.

3. After receiving this information, contact the mentor of your choice. Be prepared to discuss specific arrangements such as the nature, duration, and scheduling of your individual program. Mentees are responsible for all expenses such as travel, lodging and meals.

Participation in the Mentor Program can help develop the advanced clinical skills and proficiency needed for today's orthopaedic clinical practice. If you are interested in sharing your expertise one-on-one with other orthopaedic physical therapists, please consider becoming a mentor. To be listed as a mentor, call the Orthopaedic Section office to obtain a mentor biographical information form.

ORTHOPAEDIC SECTION, APTA, INC.
MENTOR LIST

John M. Barbis, MA, PT, OCS
Philadelphia, Pennsylvania

Michael T. Cibulka, MHS/PT, OCS
Crystal City, Missouri

Sean P. Gallagher, PT
New York, New York

Alan I. Lee, MS, PT, OCS
Honolulu, Hawaii

Thomas McPoil, PhD, PT, ATC
Flagstaff, Arizona

Michael L. Nored, PT, OCS
Albuquerque, New Mexico

Michael Phillips, PT, OCS
Gulfport, Mississippi

Richard Ritter, MA, PT
Dublin, California

Dr. Kent E. Timm, PT, OCS, SCS, ATC, FACSM
Saginaw, Michigan

Michael J. Wooden, MS, PT, OCS
Lilburn, Georgia

Marvin R. Beck, PT, OCS
Kirksville, Missouri

Frank J. Fearon, MS, PT, OCS
Gainesville, Florida

Paul LaStayo, MPT
Gainesville, Florida

Merry N. Lester, PT, OCS
Denver, Colorado

Stephen Sheldon Morgenstein, MS, PT, OCS
Cranston, Rhode Island

William H. O'Grady, MA, PT, OCS, MTC
Tacoma, Washington

Irene Barlow Rademeyer, PT, OCS
Palm Harbor, Florida

Kathleen DeMolli Shirley, PT, OCS, GCS
Palm Harbor, Florida

Allyn L. Woerman, MMSc, PT
Puyallup, Washington

Russell Woodman, PT, OCS
Hamden, Connecticut

MEETING MINUTES

BUSINESS MEETING,
JUNE 4, 1994
ANNUAL CONFERENCE,
TORONTO, CANADA
(6/13/94)

CALL TO ORDER AND WELCOME
Z. Annette Iglarsh, PT, PhD

PRESIDENT'S REPORT—
Z. Annette Iglarsh, PT, PhD

A. Approve Membership Meeting Minutes (February 5, 1994, New Orleans, LA) as printed in the Spring issue of *Orthopaedic Physical Therapy Practice.*

Due to the nature of this meeting being informational only the minutes from the February 5, 1994 Section business meeting will be approved at the next annual Section business meeting during CSM in February, 1995.

B. The agenda for this meeting was reviewed and approved.

C. Meeting procedures were reviewed
- Format of the Meeting
- Motion Forms

D. All candidates running for APTA office were sent flowers from the Orthopaedic Section again this year to thank them for their efforts and their willingness to serve.

E. Cooperative Efforts with other Professional Groups

The Section has been cooperating with other professional groups and is formalizing a liaison process to help aid in our interaction.

F. AAOMPT Update

1. The AAOMPT continues to work with the APTA on developing an accreditation process with the residency programs.

2. The request from AAOMPT via the Section via the APTA to seek recognition of the United States as a full voting member of IFOMT is under consideration. The Section will notify IFOMT that the residency accreditation process is ongoing.

G. PTON (Physical Therapy On-line Network)

A task force from the Section Board of Directors will be approaching Dennis Gyllenhaal to identify the cost of establishing PTON as a library rather than a bulletin board.

H. Foundation Split Raffle

The Section contributed $1,000 to this year's raffle.

I. Partners in Excellence Awards

1. *Orthopaedic Practice* received honorable mention in the Journals/Magazines category. Sharon Klinski, Managing Editor and Jonathan Cooperman, Editor, have done an excellent job with this publication. This continues to be an excellent magazine which is being looked at by other groups as a way of communicating with members and providing them with clinical information and doing so in a manner that can be shared with peers and other disciplines.

2. The 'Review for Advanced Orthopaedic Competencies' course received third place in the Conference Management (less than 50,000) category.

Tara Fredrickson, Administrative Assistant, has assumed the responsibility of coordinating and implementing this course from beginning to end and is doing an excellent job.

J. Outgoing Officers

1. Stanley Paris, Member-at-Large and Gary Smith, Nominating Committee Chair were recognized for all their time and effort during their term of office.

EXECUTIVE COMMITTEE REPORTS

A. Vice-President—John Medeiros, PT, PhD

1. In addition to John's role as Vice President he is also Chair of the Awards Committee. John is happy to announce that the Committee has recommended, and the Board has approved, Joe Farrell as the winner of the 1995 Paris Distinguished Service Award. Joe will be giving his presentation at the Combined Sections Meeting in Reno next February.

2. The Committee has also reviewed guidelines for the other Section awards. Following are the three new awards: Outstanding Physical Therapy Student Award, Outstanding Physical Therapy Assistant Student Award, and the Award for Excellence in Teaching of Orthopaedic Physical Therapy. More information on these awards appears in this issue of *Orthopaedic Practice.*

3. The Committee has also looked at the 18 APTA awards. They will be organizing a mechanism this summer for gathering documentation on nominees. John will be making sure that all documentation is in to the Awards Committee by early Fall. Complete packets are due to APTA by either November 1 or December 1.

B. Treasurer—Dorothy Santi, PT

1. SIG Proposed Structure

It was recommended that a tiered structure for SIG's be developed. If anyone is interested in this, please contact Tara Fredrickson at the Section office.

2. First Quarter 1994 Financial Update

a. Income

The Section's income is well ahead of budget as of the end of the first quarter. We projected that member dues would be 55% of our income ($125,000). As of March 31, member dues are 42% but the dollar amount is $8,000 more because we have increased our membership. Course registrations were projected at 33% ($76,000) and it has jumped to 53% of our actual revenue ($170,000). This is primarily due to the home study course offered during the first part of 1994.

b. Expenses

Expenses were budgeted at $208,000 for the first quarter of 1994. The Section actually spent $206,000. We are $2,000 under our budgeted expenses as of the end of the first quarter.

C. Member-at-Large—Stanley Paris, PhD, PT

This is the end of Stanley's three year term as Member-at-Large. Stanley has liaisoned with the AAOMPT and other outside groups throughout his term and has found this to be informative.

D. Education Program Co-Chairs—Nancy White, MS, PT/Lola Rosenbaum, PT, OCS

1. Annual Conference 1994 Events

The Section has attempted to coordinate programming with the Canadian group and the Orthopaedic Section. A brunch was scheduled after the business meeting to try and bring the Orthopaedic Section members and the Canadian Physiotherapists together.

2. Review Course Update

a. The next course will be July 17-23, 1994 in Williamsburg, Virginia. A five day course in November is being considered but nothing will be decided until July.

b. Albuquerque, New Mexico has been chosen as the site for the July, 1995 review course.

3. Home Study Course Update

Paul Beattie, PT, PhD, OCS, is the new editor. We are very excited about some of the changes that he has made and some of the things he is doing to bring

the course to an even better and more successful level than its been in the past. Paul has confirmed authors for a foot and ankle course in 1995 and is working on a hand course as well. The 94-2 lumbar spine course is ready to go for July, 1994.

4. Co-Sponsored Educational Course with NIH

The Section co-sponsored a TMJ course with NIH the week-end prior to the APTA Component Leadership Seminar in April. This course was very well received and well attended. We would be willing to pursue more co-sponsored courses in the future.

5. Post Professional Programs in Physical Therapy

We are still working on the list of post professional orthopaedic or musculoskeletal programs. It should be finalized and available to the membership by CSM 1995. It will contain school names, addresses and telephone numbers and a list of questions that members can ask individual schools. This will be offered in addition to APTA's publication on post professional programs.

6. CSM 1995

a. The preliminary program for CSM will be completed by the end of this Annual Conference. Anyone willing to help moderate sessions, please let Nancy White or the Section office know. This involves introducing speakers and running the audio visual equipment and lights.

b. We are considering doing a preconference course in Reno on performanced based documentation.

E. Research Chair—Dan Riddle, MS, PT

1. All members are encouraged to submit poster and platform presentations for CSM 1995. The deadline for submission is September 1. The guidelines are published in *Orthopaedic Practice* and *JOSPT.*

2. Please also submit your nominations for the Rose Excellence in Research Award. The deadline for submission is September 1. These guidelines are also published in *Orthopaedic Practice* and *JOSPT.*

3. The Research Committee is now taking on the task of writing a column in Orthopaedic Practice in the area of research issues in orthopaedic physical therapy. We will be dealing with issues like how to write a case study, how to deal with statistical interpretation, etc.

4. The topic for the 1995 Research Issues Forum at CSM is occupational health physical therapy. We have two very noted speakers in that area, Michelle Battié, PhD, PT and Michael Feurstein, PhD. They will be addressing both physical and psychosocial measures using occupational health physical therapy.

F. Executive Director—Terri Pericak

1. Sharon Klinski is the Publications Coordinator for the Section. Sharon not only handles *Orthopaedic Practice* but also produces four other publications for other Sections. These publications are all very successful and some have won APTA Partners in Excellence Awards. This says a lot for the work Sharon is doing. Sharon also does the billing for the Sports Section Administrative Services contract we have. Recently, Sharon hired a part time PT student to help with home study course tasks as well as proofing for all the publications she works on.

2. Tara Fredrickson is the Administrative Assistant for the Section. Tara's main responsibility is to coordinate and hold the 'Review for Advanced Orthopaedic Competencies' course. She is also responsible for handling all other educational courses the Section may put on including helping with the SIG and round table programs at CSM and throughout the year. Tara does a great job coordinating all of this. Tara is also the computer support person in the office. She works with the Section's computer technician who is located in Minneapolis. When Tara is not working on educational courses or the computer system she assists Terri with the many administrative duties that are ongoing in the office.

3. Mary Geary is the Section's Membership Services Secretary. Mary handles all aspects of member services and is kept very busy. She develops a good rapport with the members and does a very good job responding to their requests.

4. Terri is the Executive Director for the Section and her responsibilities include working closely with the Treasurer regarding the finances of the Section, overseeing the operations of the Section office and continuing to try and secure more administrative service contracts with other groups. Terri also works closely with the Sports Section to continue to help them move forward with their administrative office.

Terri thanks everyone in the Section office for continuing to do a great job. They are invaluable to her and there is no way the Section would be able to accomplish what it does without them.

PROGRAM REPORTS

A. Editor, *Orthopaedic Practice*—Jonathan Cooperman, MS, PT, JD

1. Sharon Klinski, Managing Editor, and Jonathan Cooperman, Editor, are writing a policy and procedures manual for *Orthopaedic Practice.*

2. We hope to be able to bring the members a regular tabbed feature section from existing and future special interest groups.

3. The call for papers which was run in the last issue of *OP* was very successful. Several people have been sending in articles.

B. Specialization—Z. Annette Iglarsh, PT, PhD

1. Document of Advanced Clinical Practice (DACP)

This document will be available for purchase through the Section office on June 15. This is an excellent guide for preparing for the specialist certification examination.

2. Test Development

The 1995 test is a new examination. It will be offered only off site using the EXPRO computer interaction system.

3. Results of 1994 OCS Exam

There were 239 candidates that sat the exam and 138 which passed. Of those who sat the exam 58% passed. The total number of orthopaedic certified specialists is now 435.

4. Recertification

The Specialty Council is conducting a recertification survey. The results from this survey were due May 15. A report is being compiled and the results will be available to the membership.

5. OCS Vacancy

Rick Ritter has finished his term on the Council and Joe Godges has been chosen to replace him. Thanks were extended to Rick at our last meeting but we would again like to extend our thanks and appreciation for all the time and effort he put forth on the Council.

6. Column in *OP*

There will be a column in *OP* dealing with the certification process. Any comments or suggestions should be addressed to Mary Ann Sweeney, Chair of the Orthopaedic Specialty Council.

C. Practice—J. Scott Stephens, MS, PT, FFSBPT

1. The Practice Committee has established dialog with the American College of Radiologists. One letter has been received expressing an interest in how to establish a relationship. The Practice Committee's goal is that we would have an acceptance by radiologists of referrals on a more formalized basis.

2. Another goal of the Committee is to collect the different guidelines for practice parameters that various components are putting together. APTA is going to be doing this as well. Our mission as a Committee is to review these guidelines and see where there is overlap and

where there are differences.

3. The Committee is looking for a hospital based orthopaedic clinical specialist, preferably from the West, to join the Committee. This would give us two hospital based therapists, one an OCS one not an OCS, and three people who are in private practice, one an OCS and two non-OCS's. This is reflective of the membership of our Section.

D. Public Relations—Karen Piegorsch, PT, OCS, MSIE

1. New Public Relations Brochure

a. The new brochure is available through the Section office. The target market for this brochure is the physical therapy community. Its purpose is to inform current members what the Section is doing for them. It will be sent out to all current Orthopaedic Section members as a one time mailing. The brochure will also be sent out to members who have dropped the Section in hopes that they will renew.

b. We are currently looking for a technical writer who is good at marketing to re-write all of the information in the first set of inserts into a format that we can use for marketing the Orthopaedic Section to all non-physical therapists throughout the country.

2. Student Guest Program

This is planned to be an annual event by which the Section provides mentoring and financial support to a first professional senior level student of the year to come to CSM.

3. Liaison Project

A Task Force consisting of the Public Relations Chair, the Vice President and the Chair of the Practice Committee will be meeting prior to the Fall Board of Directors Meeting to develop a strategic plan for liaison activities.

4. Mentor Program

The Task Force met at CSM in New Orleans and revised the procedures for people that want to be mentees and also re-wrote the description. This will appear in the next issue of *OP* along with a revised directory.

E. Nominating Committee—Gary Smith, EdD, PT, OCS

1994 Election Results

Board of Directors:

Michael Cibulka

Elaine Rosen

Nominating Committee:

Manuel Domenech

Congratulations to the new board members and nominating committee member. We would also like to extend our thanks to all those candidates who agreed to run for office. Your support of the Section and your willingness to serve are appreciated.

F. Occupational Health Special Interest Group (OHSIG)—Dennis Isernhagen, PT

1. Two new Board members were elected at the last CSM. Karen Piegorsch is the new Vice President and Susan Abeln is the new Board member.

2. Over the past couple of years the SIG has been participating with the Orthopaedic Section, Private Practice Section and the APTA Board of Directors focusing on workers compensation. These groups hosted a meeting in April in Washington D.C. There were 27 states represented and approximately 50 participants. The focus of the meeting was to try and identify the issues in workers compensation. A handful of issues were identified. The Planning Committee has set a meeting for November when they will get together and try to better prioritize these issues. The Orthopaedic Section, Private Practice Section and the APTA Board of Directors were thanked for their support of this which enabled the SIG to secure three years of funding for the project.

G. Other

1. Tom McPoil, PT, PhD, was recognized for his help on developing the new guidelines for the Foot and Ankle SIG. Model guidelines have been developed. The Section Board met and approved this new structure during their meeting at this Annual Conference.

2. Sam Brown, the APTA Board liaison to the Orthopaedic Section, was recognized for helping the Orthopaedic Section give input to issues that were pertinent to Orthopaedic Section activities.

3. Jan Richardson, APTA Board of Director and Immediate Past President of the Orthopaedic Section, was also recognized.

JOINT PRACTICE ISSUES FORUM WITH THE CANADIAN ORTHOPAEDIC PHYSIOTHERAPISTS

Stanley Paris, PT, PhD

Adjournment—11:00 AM

☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆

11:00 AM - NOON

BRUNCH RECEPTION
WITH THE
CANADIAN ORTHOPAEDIC
PHYSIOTHERAPISTS
HOSTED BY THE
ORTHOPAEDIC SECTION, APTA

ORTHOPAEDIC PHYSICAL THERAPY HOME STUDY COURSES

COURSE LENGTH: 90 DAYS FROM DATE OF REGISTRATION

LIMITED SUPPLY REMAINING

1 HSC 91-1 TOPIC: LOWER EXTREMITY

- An Orthopaedic Approach to the Hip Part I
- An Orthopaedic Approach to the Hip Part II
- Current Rehabilitation Following ACL Reconstruction
- Peripheral Entrapment Syndromes of the LE
- Kinetic Chain: Dysfunctional and Compensatory Effects within the LE
- A Biomechanical Approach to the Treatment of Overuse Injuries of the LE

SOLD OUT

2 HSC 92-1 TOPIC: LOWER EXTREMITY

- Gait Analysis: The Lower Extremities
- Functional Biomechanics of the Subtalar Joint
- Cardiopulmonary Considerations in Orthopaedic Care
- Anterior Knee Pain: Differential Diagnosis and Physical Therapy Management
- The Posterior Cruciate Ligament
- Plyometric Exercise Testing Combining Strength with Speed

3 HSC 93-1 TOPIC: UPPER EXTREMITY

- Shoulder Impingement Syndrome
- The Principles of Resistance Training for the UEs: Isometric, Isotonic & Isokinetic Exercise
- The Upper Extremity: The Cumulative Trauma Dilemma
- Total Arm Strength Rehabilitation for Shoulder and Elbow Overuse Injuries
- Current Concepts in the Treatment of Shoulder Instability
- Adolescent Upper Extremity Overuse Injuries

4 HSC 94-1 TOPIC: LUMBAR SPINE

- Lumbopelvic Anatomy & Mechanics and their Relationship to Low Back Pain
- McKenzie Approach to the Lumbar Spine
- Thoracolumbar Spine: Postsurgical Rehabilitation of the Orthopaedic Patient
- Radiology of the Lumbar Spine
- Industrial Medicine and the Lumbar Spine
- Cyriax Approach to the Lumbar Spine

Each manuscript will include:
ANATOMY • BIOMECHANICS • PATHOMECHANICS • EVALUATION • TREATMENT

REGISTRATION FEES—PER COURSE:
$150.00 each Orthopaedic Section Members • $225.00 each APTA Members • $300.00 each Non-APTA Members
Special discounted rates are available for institutions with multiple registrants. Please call the Section office for complete information.
* *Absolutely no refunds will be given after the start of the course!*

EDUCATIONAL CREDIT:
30 contact hours. A certificate of completion will be awarded to participants after successfully completing the final test. Only the registrant named will obtain the CEUs. No exceptions will be made.

REGISTRATION FORM
ORTHOPAEDIC PHYSICAL THERAPY HOME STUDY COURSE _____

Name_____

Mailing Address _____

City _____ State _____ Zip _____

Daytime Telephone Number (_____) _____ APTA # _____

Please check: ☐ Orthopaedic Section Member ☐ APTA Member ☐ Non-APTA Member / (Wisconsin Residents add 5.5% Sales Tax)

JOIN THE SECTION AND TAKE ADVANTAGE OF THE DISCOUNTED REGISTRATION RATE IMMEDIATELY!
☐ I wish to become an Orthopaedic Section Member ($50) and take advantage of the member rate.

Please make check payable to: **Orthopaedic Section, APTA**
Mail check and registration to: **Orthopaedic Section, APTA, 505 King Street, Suite 103, La Crosse, WI 54601**
1-800-444-3982 or 608-784-0910 FAX 608-784-3350

SECTION NEWS

VICE PRESIDENT'S REPORT

1. The Paris Distinguished Service Award, the Outstanding Student Award and the Excellence in Teaching Award have been edited. Special thanks to Rick Ritter for assisting with this task.
2. Ann Porter Hoke and I met to review the documentation for a nominee for the Paris Distinguished Service Award. I forwarded the recommendation of the Awards Committee to the section office on 3/30/94.
3. The issue regarding SOMA advertising its courses as "meeting the requirements for specialization in orthopaedics relative to APTA standards" was forwarded on to Mary Ann Sweeney.

John M. Mederios, PT, PhD
Vice President

EDUCATION PROGRAM COMMITTEE REPORT

CSM '95—Most programming has been completed and speakers are being confirmed for the meeting in Reno. Black Tie and Roses will be held on Saturday night. We are discussing a preconference course for Wednesday.

Annual Conference—The business meeting and issues forum was held Saturday morning, June 4. The issues forum was in conjunction with the CPT Orthopaedic group. This was followed by a brunch hosted by the Orthopaedic Section.

Review Courses—We have one new speaker for the Review Course in Williamsburg. Registrations are coming in now for this course. We have been contacted about holding a second course in November and waiting for a response to our request for information.

Home Study Courses—The first lumbar spine course is almost completed and has had almost 1,000 registrants. Most of the manuscripts are in for the second lumbar spine course scheduled to begin this summer. Authors are already confirmed for a foot and ankle course for 1995 and inquiries are being made about a hand course. Paul Beattie is off to a great start in his first six months as editor.

Continuing Education Course—The Head and Neck/TMJ course which was cosponsored with NIH in April was successful with 55 participants.

Brochure—The committee has provided copy for the PR committee for the new brochure.

Mentorships—Lola has been working with Karen on revising the mentor program. We will be holding a one hour program about this during CSM '95.

Nancy T. White, MS, PT
Chair, Education Program Committee

RESEARCH COMMITTEE REPORT

The annual Call for Participants for Research Platform and Poster Presentations and the Call for Nominations for the Rose Excellence in Research Award has been submitted to the *Journal of Orthopaedic and Sports Physical Therapy* and *Orthopaedic Practice*. These will appear in *JOSPT* during the months of April through September. The Call for Papers will also appear in the Journal, *Physical Therapy*, from May to September.

The committee has confirmed the topic and guest speakers for the Research Issues Forum at the 1995 CSM. The topic will be research needs in occupational health physical therapy. Dr. Michelle Battié will address physical measurements and issues and Dr. Michael Feurstein will discuss psychosocial issues related to occupational health physical therapy. We look forward to this program.

The committee developed a Research Issues Column to appear in each issue of *OP*. The general theme for this column will be to address the barriers to clinical research. Members of the research committee and invited guests will write the column. The first column is found on page 15 of this issue.

Daniel L. Riddle, MS, PT
Chair, Research Committee

ORTHOPAEDIC SPECIALTY COUNCIL REPORT

Description of Advanced Clinical Practice (DACP)

1. The DACP was completed and forwarded for publication. It should be available for purchase this summer. The new document outlines advanced Orthopaedic Clinical Practice responsibilities and links these with the applicable knowledge areas. The 1995 test will be based on this new document.

2. The Specialty Council wants to thank the many individuals who volunteered significant time and energy developing the new document. This includes the subject matter experts (SME's) who helped to develop and interpret the Practice Analysis Survey: Leon Anderson III, Jeanne Bryan, Tony Delitto, Karen Ensley, Joe Godges, Bob Johnson, Alan Lee, Rich Nyberg, Russ Woodman; the SME's who evaluated and critiqued the pilot Practice Analysis Survey: Michael Cibulka, Scott Hasson, Ann Porter Hoke, Elaine Rosen, Eileen Vollowitz. Special thanks to Mary Milidonis whose dedication, managing skills and vision guided this project to a most successful completion.

Test Development:

1. Exam development committee: A temporary exam development committee was established consisting of the following members: Rick Ritter, Bob Johnson and Karen Ensley. They reviewed and edited new items submitted for the test item bank. There is a need to establish a permanent item writing expert team charged to generate new exam items. Rick Ritter developed a plan which includes training item writers. The ABPTS will sponsor an item writing workshop in 1995 (probably at CSM).

2. Recoding Items/Test Construction: The OSC began recoding all new and current items to reflect the new DACP. This includes editing, item coding, cognitive level assignment and, in a separate process, the determination of the cut score. This along with the new test construction will be accomplished early this summer.

1994 Certification Examination:

1. There were 239 candidates who sat for the 1994 Specialty Exam and 138 passed the test. The new total number of certified specialists is 435 and the cumulative pass rate is 68%. This was the first year the EXPRO electronic testing system was used to administer the exam. Approximately 185 orthopaedic candidates tested via the EXPRO system. The EXPRO exit pole (183 total respondents)

rated EXPRO an easy to use system.

2. The 1995 test will be administered soley via the EXPRO system. There will no longer be test administration at CSM. The 1995 test will be administered during the month of March at all EXPRO sites. Application deadline is August 31, 1994.

Recertification:

The OSC continues to receive recertification surveys. The data will be closed out on May 15 and the analysis completed. Early returns indicate that Orthopaedic Certified Specialists do not want to retake an exam and hope for other options. The goal is to complete a recertification plan by December 1994.

OSC Vacancy:

The ABPTS approved the nomination of Joe Godges to replace Rick Ritter on the Orthopaedic Specialty Council. Joe Godges accepted the four year appointment and will be joining the council in time for the June exam construction.

OP Column:

The Council is trying to improve communication between the Orthopaedic Section Members and the Specialty Council through an "Ask the Council" column in *OP*.

Acknowledgments:

1. Rick Ritter's service to the Orthopaedic Section and the Orthopaedic Specialization process has been truly exceptional. He tenaciously worked for orthopaedic specialization overcoming many formidable obstacles that would overwhelm most people. However, Rick, goal oriented and a true believer in the certification process, persevered to establish an Orthopaedic Specialty Examination that continues to improve. We are indebted to him for his vision, unselfish service, wit and wisdom. His corporate knowledge is invaluable. I am sure Mary Milidonis and I will continue to consult him as the "Emeritus" council member.

2. The OSC wishes to thank the Orthopaedic Section for their continued support. Special thanks to the home office for all their help.

Mary Ann Sweeney, PT, OCS
Chair, Orthopaedic Specialty Council

PUBLIC RELATIONS COMMITTEE

1. New public relations brochure

The new pocket brochure that targets the physical therapy community was made available for distribution in June.

Work has already begun on the design for a second set of inserts (for use with the same shell) that will target people outside of the physical therapy community. The goal is to complete the second set of inserts by the end of this year.

2. Student Guest Program

The procedure is in place to select a student to be the guest of the Section at CSM '95.

3. Liaison Program

A Task Force met during Annual Conference to review the input received from the membership and to develop recommendations on how to proceed with this program.

4. The Mentor Program

The newly formatted "Directory of Mentors" and the new description of the Mentor Program was available during Annual Conference and will be published in a future issue of *OP*.

Karen Piegorsch, PT, OCS, MSIE
Chair, Public Relations Committee

NOMINATING COMMITTEE REPORT

Number of ballots sent out 10,852
Number of ballots returned: 1,381
Number of ballots returned that were considered invalid: 424
(these were invalid because a return address and name were not given on the ballot—as was instructed on the voting instructions)

RESULTS:

Board of Directors
Michael Cibulka
Elaine Rosen

Nominating Committee Member
Manuel Domenech

The return rate was increased from approximately 600 ballots in 1993 to approximately 1,400 in 1994. In terms of percentages, in 1993 a 6% return rate was achieved; this year, we increased our return rate to 13%.

Although we will still need to determine a way to receive an increased number of valid ballots, I believe that we are on the right track towards having "successful" elections.

Gary Smith, EdD, PT, OCS
Chair, Nominating Committee

CSM '95 Preliminary Schedule

WEDNESDAY, FEBRUARY 8
Pre-Conference Course—Performance Based Documentation
Gary Smith, Donna El Din

THURSDAY, FEBRUARY 9
A.M.
Emerging Trends in Delivery of Care

P.M.
Reflex Sympathetic Dystrophy (Chronic Pain RT)
Oncology/Musculoskeletal Considerations
Manual Therapy Roundtable
Health Benefits of Exercise for Women

FRIDAY, FEBRUARY 10
A.M.
Pharmacology for PTs
Research Platforms

P.M.
Research Issues Forum on Work Related Injuries
Roundtables in Performing Arts & Head and Neck
Full Day Program with the Geriatric Section

SATURDAY, FEBRUARY 11
A.M.
Business meetings

P.M.
Foot and Ankle Roundtable
Occupational Health Hot Topics
Research Platforms
Musculoskeletal Pain
Janet Travell

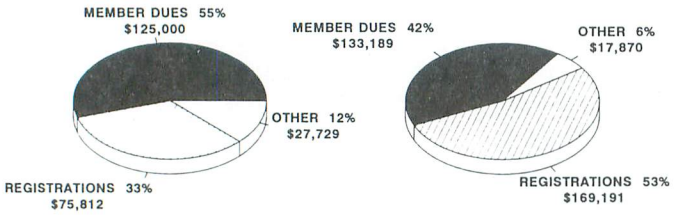
6:00 P.M.
Paris Distinguished Service Award Lecture

7:00—10:00 P.M.
Black Tie and Roses

SUNDAY, FEBRUARY 12
A.M.
Pediatric Sports Injuries with Peds

1994 BUDGET TO ACTUAL

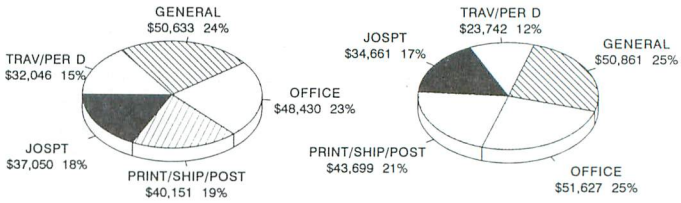
INCOME: BREAKDOWN - March 31, 1994
(+40.1% over our expected budget YTD)



BUDGETED: $228,541.26 **ACTUAL: $320,250.22**

1994 YTD BUDGET TO ACTUAL

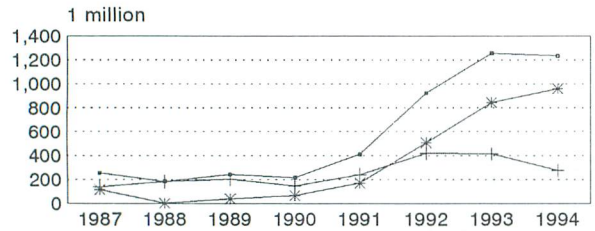
EXPENSE: BREAKDOWN - March 31, 1994
(–1.8% under our expected budget YTD)



BUDGETED: $208,310.31 **ACTUAL: $204,590.39**

YEAR END FISCAL TRENDS

1987-1994 (1994 data is as of March 31, 1994)



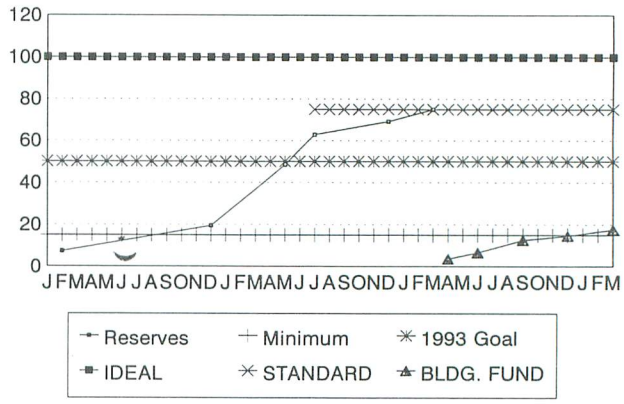
	1987	1988	1989	1990	1991	1992	1993	1994
ASSETS	255	185	243	217	410	925	1,257	1,234
LIABILITIES	141	183	203	148	240	417	413	274
EQUITY	114	2	40	69	170	508	844	960

ASSETS LIABILITIES EQUITY

To nearest thousand

RESERVE FUND

January 1, 1991 to March 31, 1994



REQUEST FOR RECOMMENDATIONS
ORTHOPAEDIC SECTION OFFICES

The Orthopaedic Section of the APTA needs your input for qualified candidates to run for the offices listed below. To serve is exciting and an honor! If you would like the opportunity to serve the Section or know of qualified members who would serve, please fill in the requested information. Return this completed form to the Chair of the Nominating Committee as soon as possible before January 1, 1995. The Nominating Committee will solicit the consent to run and biographical information from the person you recommend.

Print full name of recommended nominee _____

Address _____

City _____ State _____ Zip _____

Home Phone Number (_____) _____ Office Phone Number (_____) _____

is recommended as a nominee for election to the position of:

CHECK THE APPROPRIATE POSITION:

☐ PRESIDENT (3 yr. term)

☐ VICE PRESIDENT (3 yr. term)
Candidates for President and Vice President should have Association experience on the Section, State or National level.

☐ NOMINATING COMMITTEE MEMBER (3 yr. term; 2 yrs. as member, 1 yr. as Chair)
Should have broad exposure to membership to assist in formation of the slate of officers.

Please return by January 1, 1995 to:
Michael Wooden, PT, MS, OCS
Orthopaedic Section, APTA, Inc.
505 King Street, Suite 103
La Crosse, WI 54601

Nominator: _____

Address: _____

Phone: _____

Orthopaedic Section, APTA, Inc.
Balance Sheet
December 31, 1993

ASSETS	Unrestricted Funds OPERATIONS	Restricted Funds EDITORIAL JOURNAL	Restricted Funds EQUIPMENT	Restricted Funds W & W	TOTAL OF ALL FUNDS
Current Assets:					
Cash & Cash Equivalents	$201,171	$0	$7,943	$2,414	$211,528
Investments	903,823				903,823
Accounts Receivable:					
Programs	1,402				1,402
APTA	59,631				59,631
Ortho Section				6,562	6,562
Equipment	11,340				11,340
Inventory	8,135				8,135
Prepaid Expenses	23,532				23,532
Total Current Assets	$1,209,034	$0	$7,943	$8,976	$1,225,953
Property & Equipment:					
Office Furniture & Fixtures	$108,468	$0	$42,804		$151,272
Less: Accumulated Depreciation	(67,573)		(18,644)		(86,217)
Net Property & Equipment	$40,895	$0	$24,160	$0	$65,055
TOTAL ASSETS	$1,249,929	$0	$32,103	$8,976	$1,291,008

LIABILITIES AND FUND BALANCE	Unrestricted Funds OPERATIONS	Restricted Funds EDITORIAL JOURNAL	Restricted Funds EQUIPMENT	Restricted Funds W & W	TOTAL OF ALL FUNDS
Accounts Payable:					
Program	5,756	$0	$0	$0	$5,756
Orthopaedic Section			11,340		11,340
Sports Section			3,733		3,733
APTA-WCFG	6,867				6,867
Accrued Payroll & Sales Tax	2,941				2,941
Pension Plan Payable	4,648				4,648
Deferred Income:					
Unexpired Dues	262,697				262,697
Services Paid in Advance	130,206				130,206
Total Current Liabilities	$413,115	$0	$15,073	$0	$428,188
Fund Balance	$836,814	$0	$17,030	$8,976	$862,820
	$1,249,929	$0	$32,103	$8,976	$1,291,008

CALL FOR NOMINATIONS

FOR

THE 7TH ANNUAL ROSE EXCELLENCE IN RESEARCH AWARD

THE BEST RESEARCH ARTICLE OF 1994
IN
ORTHOPAEDIC PHYSICAL THERAPY

The Research Committee of the Orthopaedic Section of the American Physical Therapy Association is soliciting nominations in order 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.

I) ELIGIBILITY FOR THE AWARD

The recipient must:

1) be a physical therapist licensed or eligible for licensure in the United States of America;
2) be a member of the American Physical Therapy Association;
3) be the primary (first) author of the published manuscript.

The article must be published in a reputable, refereed scientific journal between September 1, 1993 and August 31, 1994 to be considered for the award. Should the journal containing an otherwise eligible article experience a delay in releasing its August, 1994 issue, the article must be available to the general public no later than September 15, 1994 to be considered.

II) SELECTION CRITERIA

The article must have a significant impact (immediate or potential) upon the practice of orthopaedic physical therapy. The article must be a report of research but may deal with basic sciences, applied science, or clinical research. Reports of single clinical case studies or reviews of the literature will not be considered.

III) THE AWARD

The award will consist of a plaque and $500.00 to be presented at the Combined Sections Meeting in Reno, NV, February 8-12, 1995.

IV) NOMINATIONS

Written nominations should include the complete title, names of authors, and the citation (title of journal, year, volume number, page numbers) of the research article. The name, address, and telephone number of the person nominating the research article should also be included.

Nominations (including self-nominations) will be accepted until close of business September 15, 1994 and should be mailed to:

Daniel L. Riddle, MS, PT
Research Committee Chair
Orthopaedic Section, APTA
c/o Department of Physical Therapy
Virginia Commonwealth University
McGuire Hall, 1112 East Clay Street, Room 209
Box 980224, MCV Station
Richmond, VA 23298-0224

APTA SPECIAL AWARDS

Mary McMillan Scholarship: Honors outstanding physical therapy students.

Dorothy E. Baethke—Eleanor J. Carlin Award for Teaching Excellence: Acknowledges dedication and excellence in teaching in physical therapy

Signe Brummstrom: Acknowledges individuals who have made significant contributions to physical therapy

Award for Excellence in Clinical Teaching: Acknowledges individuals who have made significant contributions to physical therapy clinical education through excellence in clinical teaching

Catherine Worthingham Fellows of the APTA: Recognizes those persons whose work has resulted in lasting and significant advances in the science, education, and practice of the profession of physical therapy

Henry O. Kendall and Florence P. Kendall Award for Outstanding Achievement in Clinical Practice: Acknowledges contributions to physical therapy in general (must have engaged in extensive clinical practice at least fifteen years)

Marion Williams Award for Research in Physical Therapy: Given for sustained and outstanding basic, clinical, or educational research

Lucy Blair Service Award: Acknowledges members whose contributions to the Association have been of exceptional value

Mary McMillan Lecture Award: Honors a member of the Association who has made a distinguished contribution to the profession; through a lecture presented at Annual Conference

Minority Achievement Award: Recognizes continuous achievement by an entry-level accredited physical therapy program in the recruitment, admission, retention, and graduation of minority students

Minority Initiatives Award: Recognizes the efforts of a physical therapy program in the initiation and/or improvement of recruitment, admission, retention and graduation of minority students

Chapter Award for Minority Enhancement: Acknowledges exceptionally valuable contributions to an APTA chapter to the profession relative to minority representation and participation

Margaret L. Moore Award for Outstanding New Academic Faculty Member: To acknowledge an outstanding new faculty member who is pursuing a career as an academician and has demonstrated excellence in research and teaching

Helen J. Hislop Award for Outstanding Contributions to Professional Literature: To acknowledge individual physical therapists who have made significant contributions to the literature in physical therapy or in other health care disciplines

Jack Walker Award: In honor of the contributions made to physical therapy by Jack Walker, former President of Chattanooga Pharmaceutical Company (now the Chattanooga Corp), this corporation has funded an annual award of $1,000 for the best article on clinical practice published in Physical Therapy.

Golden Pen Award: Gives recognition to members who have made significant contributions to the advancement of Physical Therapy.

Eugene Michels New Investigator Award: This is a $1,000 incentive award to encourage continued research efforts in physical therapy.

Chattanooga Research Award: In order to encourage the publication of outstanding physical therapy clinical research reports, the Chattanooga Corporation has funded an annual award of $1,000 for the best article on clinical research published in Physical Therapy.

Dorothy Briggs Memorial Scientific Inquiry Award: To give public recognition to physical therapist members of the APTA for outstanding reports of research in physical therapy, undertaken while they were students and published in the official journal of the APTA.

Space limitations do not permit a complete description of awards and scholarships, or the complete criteria. If you desire additional information, please contact the Section office.

Send your recommendations/nomination by December 1, 1994 to:

Orthopaedic Section, APTA, Inc.
505 King Street, Suite 103
La Crosse, WI 54601
(800) 444-3982

Orthopaedic Physical Therapy Practice
American Physical Therapy Association
505 King, Suite 103
La Crosse, WI 54601

Announcing. . .

The Orthopaedic Section's Home Study Course 95-1

Topic: Foot and Ankle

Proposed Authors and Topics Include—

- **Damien Howell, MS, PT**
  Treatment Approaches to Foot & Ankle Disorders Using Exercise & Orthotic Devices
- **Jeff Kloer, PT**
  Traumatic Disorders of the Foot & Ankle
- **Tom Mayhew, PhD, PT**
  Anatomy of the Foot & Ankle
- **Mike Mueller, PhD, PT**
  Systemic Diseases which Affect the Foot
- **David Tiberio, MS, PT**
  Biomechanics of the Foot and Ankle
- **Michael Wooden, MS, PT**
  Overuse Syndrome of the Foot and Ankle

Please Watch For Further Details.