Physical Therapy and Complementary and Alternative Medicine: An Educational Tool for Enhancing Integration

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Published online: 28 July 2007
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Abstract In an outpatient rehabilitation setting, both patients' use and therapists' knowledge of complementary and alternative medicine (CAM) varies widely. Based on this observation and a recognition of CAM as an emerging practice area for rehabilitation professionals, it was felt that a thorough and consistent approach to the education and orientation of physical therapists to the world of CAM and integrative care was needed. This special interest paper will describe one center's approach, development, and use of a unique and comprehensive training manual designed to provide both a structured and standardized approach for educating physical therapists about CAM and related therapeutic modalities. This innovative teaching tool allows for multiple methods of content delivery within a multidisciplinary format and can be used for those who practice currently or desire to practice in an integrative care environment.

Key words CAM · modern medicine · traditional medicine

Introduction

Health professionals undergo continuous training throughout their professional careers. Usually, this consists of updates to their already rigorous training. Rarely do they have to undergo an extensive recalibration of their practice and to rethink their attitude to practices which seemed outside their field. In recent years, the rediscovery in the

U.S. of the validity of many complementary and alternative medical practices has led to a need for extensive re-education especially in the field of orthopedic rehabilitation. We report here on a tool for the support of orthopedic rehabilitation therapists who are increasing their mastery of new tools for the improvement of patient rehabilitation and functional maintenance.

Background

In this paper, we use the term, "modern medicine" to describe accepted medical practices in the U.S.A. and the term "traditional medicine" to describe any traditional healing system used in other localities or separately by the private citizens. In some countries, traditional medicine may include modern medicine plus other modalities. Before 1970, very few papers appeared in the Western medical literature on traditional medicine, particularly those modalities which constitute what has come to be known as "alternative medicine". Searching on the word "acupuncture" in MEDLINE, there was one reference in 1951 [1], the earliest found in the English language in a modern medical database, and one further reference in each of 1952 [2] and 1954 [3]. By 1972, there were 75 papers cited referencing acupuncture, several in the Journal of the American Medical Association [4] and at least one in the New England Journal of Medicine (NEJM) [5]. Thus, during this 20-year interval, professional interest in acupuncture increased among Western practitioners, albeit often with a very critical eye.

In 1993, Eisenberg et al. [6] published a report of a national telephone interview. Excluding exercise and prayer, 34% of those interviewed had used at least one "unconventional therapy". Given this popular trend, the paper suggests that scholarly research and education in this area should be promoted. This was followed by an ever-increasing interest in what was increasingly referred to as CAM, complementary and alternative medicine.

An interesting survey on CAM was provided by a series of papers in the journal, Orthopaedic Physical Therapy Clinics of North America. One paper promoted the use of holistic complementary and alternative therapy as a

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Table 1 Modalities offered in 2006 at the Integrative Care Center

Modalities
Pilates
Acupuncture
Massage Therapy
Chiropractic Medicine
Pain Management
T'ai Chi
Osteofitness
Yoga
Feldenkrais
Nutrition

complement to modern medicine [7], whereas another paper advocated the use of CAM by physical therapists [8]. The paper traced the path from the current use of exercise and assisted movement in orthopedic practice to the incorporation of safe and efficacious modalities from traditional medicine. In the same issue, Caplan et. al. [9] traced the recent history of CAM in the United States, starting with what they term “the last paradigmatic shift” between 1890 and 1920. They call for physical therapists to consider the future of CAM seriously.

As early as 2001, a paper was published summarizing the experience to date with complementary and alternative medicine within established modern medicine hospital settings [10]. The article also provided a framework for establishing such centers.

Meanwhile, the public’s interest in CAM continued unabated as reported in the 2002 National Health Interview Survey. In this report, 62% of adults used some form of CAM during the previous 12 months [11]. This same survey of over 31,000 adults confirmed earlier observations concerning the use of CAM in the treatment or prevention of musculoskeletal conditions or other conditions associated with chronic or recurring pain.

A recent article has reviewed the contemporary literature and summarizes the use the complementary medicine in orthopedics [12].

Massage, acupuncture, herbal medicine and nutrition, manipulative therapies and massage, spirituality, movement therapies, hypnosis, and imaging techniques are reviewed.

Hospital for Special Surgery and Complementary Medicine

In the 1990s, complementary medicine was often discussed at the hospital, and individual health professionals had experience in those practices and some were certified in various modalities. Both exercise and assisted motion were in regular use by physical therapists to aid patients recover from surgery or overcome pain and stiffness. Interactions with patients had revealed extensive use of traditional medicine for pain and discomfort. Gradually, some complementary medical practices were introduced or recommended by some of the physicians. The first randomized trial of a complementary treatment at the hospital was designed and completed, testing acupuncture for chronic low back pain [13].

In May 2001, the Integrative Care Medicine Center affiliated with Hospital for Special Surgery was opened [14]. The term “integrative”, rather than “complementary” or “alternative”, was used to emphasize and to foster collaboration rather than competition. An ideal bridge to the world of integrative medicine, physical therapy and its patient-centered philosophy supports and works synergistically with many complementary and alternative modalities, thus, allowing for the “blending of the best of both worlds.” While this idea has conceptual appeal, it became evident that more than just a theoretical alignment was necessary for this to become reality in practice, as many therapists would need to be educated about unfamiliar therapeutic modalities.

Adult education is the subject of a vast literature in itself. Much of this literature in adult education in the health arena has been generated by the schools of public health interested in educating the public and professionals [15], but the general field of health education has covered all medical practitioners. The theory of adult education, particularly continuing education, stresses “interaction” rather than didactic lectures [15, 16] and stresses hands-on experience, discussion, examination of barriers, and selection of best practices. The status of an adult learner must always be respected as an equal professional in an on-going interaction [16, 17]. Any education program instituted must be “committed-to-change” [18, 19]. Education just for the sake of education is neither useful nor usually successful.

Nonetheless, physical therapists continue to learn through lectures, group discussions, formal department meetings, journal clubs, and videos. The usual approach for learning a new technique is first to observe, second to perform it in a supervised situation, and finally to proceed to independent treatment. In this pattern, it follows the current theories of interactive education. However, to facilitate discussion, to allow interaction between professionals, and to provide the scaffold for shared knowledge, at least one acknowledged source of information must

Number of visits to Integrative Care Center

Fig. 1. The number of visits in thousands by patients to the Integrative Care Center by year since it was opened in 2001. The Center was only open for 7 months in 2001

exist. In the case of the Integrative Care Center, one source of information is the “Rotator’s Manual”.

The “Rotator’s Manual”

In an effort to develop an informational database and assessment tool for clinical competency for rotating rehabilitation staff, the “Rotator’s Manual” was created. Assembled in the form of an easily updated three-ring binder, the manual was designed to reflect the policies of both the institution and department while including content regarding CAM modalities and their potential application within a rehabilitation context.

The teaching tool is a comprehensive training manual that includes didactic materials in combination with structured observational and interactive sessions with both traditional and complementary/alternative practitioners. The manual also contains research articles and case studies, placing all educational training within an evidence-based context. Arranged in sections beginning with an introduction of overall clinical competency policies and procedures, an orientation checklist is included, which encompasses general and administrative details for the Center as well as role-specific duties and competencies. Following the standard orientation content, the remainder of the manual focuses on CAM and the appropriateness of its integration into traditional physical therapy practice. A glossary of CAM-related terms, as well as a list of required readings, is included. Topics included in the reading list are as follows:

- 1) an overview of complementary and alternative medicine (CAM);
- 2) acupuncture (history, basic orientation to the procedure and how it can be used as an adjunct to physical therapy);
- 3) mind–body therapy (biofeedback, relaxation training, imagery training, self-hypnosis, therapeutic touch, counseling, and psychotherapy as related to pain management);
- 4) yoga and meditation (introduction and explanation of use with orthopedic physical therapy);
- 5) massage (introduction and explanation of types as well as certification information);
- 6) Pilates (introduction with specific uses in a rehabilitation setting);
- 7) nutritional supplements and herbal remedies (general supportive information for orthopedic patients and specifically for arthritis); and
- 8) Tai Chi (information on its use as a movement/exercise modality in orthopedics). As new developments in practice and research become available, the binder-format facilitates ensuring that the most current information is presented.

At the conclusion of reviewing all written material and completing observational experiences, all staff demonstrate their competence through direct performance evaluations and written tests to ensure all educational outcomes have been met. Once the baseline competency of staff has been

established, numerous opportunities for continuing education are available. When it is not being used for training or orientation purposes, the “Rotator’s Manual” serves as a valued reference for all Center practitioners and staff.

This educational program allows the Integrative Care Center to offer its extensive program with confidence. Modalities currently available in 2006 at the Integrative Care Center are shown in Table 1.

Observations and conclusion

Responses to this training methodology have ranged from initial resistance to full acceptance and appreciation. It became evident that many therapists assumed they knew a lot more about CAM and how it may be utilized than was the case. Now, therapists view this tool as a way to further enhance their professional knowledge base and accompanying skills while at the same time offering patients information and deeper insight into CAM options to facilitate their overall treatment outcomes and well-being.

For physical therapists (and other rehabilitation professionals), a simple awareness of CAM and its related therapies is only the beginning. Although CAM is being included more often in curricula for multiple disciplines, it is often superficial and inconsistent. It is the responsibility of practitioners, regardless of their discipline, to educate themselves and each other to be prepared to answer questions and discuss the use of CAM with their patients. While practitioners need not master multiple CAM modalities, well-informed guidance and support is critical for attaining safe, holistic, and truly integrative care in any setting while enhancing individual professional practice.

One measure of the success of the Center can be gauged by the increase in use. In 2001, there were 5,591 visits in 7 months; in 2002, there were 11,794 visits, and in 2005, 13,860 patient visits were recorded at the Center (Fig. 1). Thus, the Center is a growing source of comfort to an increasing pool of patients. The “Rotator’s Manual”, designed to be inclusive and educational, has assisted our therapists in the maintenance of their knowledge of current practices. In this rapidly developing environment, the manual provides a central core for easy access to information about new modalities and the development of existing programs.

Acknowledgments The authors wish to thank T.J. Sheehan Ph.D. of the University of Connecticut Health Center for advice and for referring us to T.J. Van Hoof MD, MA of the University of Connecticut Health Center who very generously shared his expertise on continuing education in the medical profession and his Grand Rounds notes with us. The authors would also like to thank Lizz van Wilgen MSPT and Elizabeth Bonamo PT for their dedication and commitment to the success of the ICC. This study was supported in part by AR046121.

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