



# Massage Therapy:

*Clinical Applications for Individuals Dealing with Multiple Chronic Conditions*

 This article is approved by the following for one continuing education credit:

ACFEI (APA) is approved by the American Psychological Association to offer continuing professional education for psychologists. ACFEI maintains responsibility for the program.

ACFEI/APA provides this continuing education credit for Diplomates after October 2001 who are required to obtain 15 credits per year to maintain their status.

ACFEI is California Board of Registered Nursing Provider 13133.

By Maria Kuhn, MA, MS, NCC, DAPA; Christopher Jones, PhD; Christina Krause, PhD; and Karen Curtin, RN, BS, CDMS, CCM

**Key Words:** massage, massage therapy, therapeutic touch, chronic illness

## **Abstract**

This article examines the positive effects that massage therapy has on individuals suffering from a single chronic illness and suggests that massage therapy would have beneficial effects on individuals suffering from multiple chronic illnesses. Specifically, protocols were developed to address the lack of a therapeutic framework for individuals dealing with multiple chronic illnesses. Eighteen studies that met the following three criteria were selected: First, they dealt with massage therapy being applied to individuals suffering from chronic illnesses; second, they were published in peer-reviewed nursing, allied health, and alternative health journals; and third, they were quantitative in scope. While a framework for the administration of massage therapy for chronic illnesses has been proposed, the benefits still need to be empirically examined for individuals dealing with multiple chronic conditions.



## Introduction

In the late 1990s, the authors of this article, who were specializing in the fields of psychotherapy and traditional and alternative medicine, developed an integrated health program and commenced an interactive journey to develop a more effective and aggressive intervention aiding individuals dealing with multiple chronic illnesses. Chronic illness has been described as “long term or permanent and interferes with the person’s ordinary physical, psychological, or social functioning” (Hymovich & Hagopian, 1992). We have found that chronic illnesses affect numerous areas in an individual’s life, including the physical, psychological, spiritual, financial, and social functioning of the individual.

Our purpose in creating the Integrated Health Advocacy Program was to treat more than the physical needs of these individuals; we sought to deal with their unique and numerous needs. Appropriate goals were established for each participant through a program of education, training, decision, and support received from a multidisciplinary team of health advocates (comprised of a physician, case manager, nurse, and clinical counselor). Furthermore, our multidisciplinary team assisted participants in gradually assuming control and responsibility for their own health care, resulting in the desired goals being met. This approach has been described in our clinical intervention as a “whole person” approach (Joyce, Kuhn, Curtin, & Murphy, 1999). Toward the goal of improving the overall health of these individuals, we wanted to include treatment modalities that address the various mind and body issues that contribute to illnesses. Specifically, a massage component was integrated into the participants’ care plans to improve their physical, psychological, and social functioning. Our multidisciplinary team was interested in utilizing massage therapy because of

its value in facilitating healing powers within the body.

The purpose of this article is two-fold. The primary goal is to promote the utilization of therapeutic massage in treating various medical and psychological illnesses. In accordance with this first objective, we will present the insights that can be taken from recent research studies that incorporate the appropriate research techniques. The secondary goal of this article is to suggest methods for incorporating the use of massage therapy into a variety of health-related settings as a treatment for specific health concerns. In accordance with the second objective, we will explore the benefits of massage therapy and the types of massage appropriate for various functional issues. Furthermore, we will address the issue of the appropriate frequency and duration of treatment.

## Brief Historical Perspective of Massage Therapy

References to massage are found in “the Vedas of India and Chinese medical texts dated more than 4,000 years old” (Greene, 2000). Massage has been recognized in the Western world as a therapeutic modality since 400 B.C., and in the 19th century American physicians were using massage as a therapeutic treatment in their medical practices (Greene, 2000). This time-intensive practice of massage was delegated to nurses and assistants, and by the 1940s massage therapy disappeared with the pharmaceutical revolution (Field, 1998; National Institute of Health, 1994). Recently, massage therapy has experienced a rebirth as a health treatment modality in the complementary health care community. Additionally, with the publication of the National Institute of Health’s (1994) review of alternative medical systems and practices, massage was generally acknowledged as an important and beneficial therapeutic modality. The re-emergence and recognition of the value of massage by the National Institute of Health (NIH) was the impetus in planning the objectives of this article.

Table 1: Functional System Rational, Conditions, and Treatment Goals

Functional System(s)	Conditions	Treatment Goals
<b>I. Circulatory and Lymphatic</b> A. Circulatory system aides in homeostasis and transports respiratory gases (oxygen), nutrients, metabolic wastes, hormones, and antibodies to tissues throughout the body via continuous blood flow B. Lymphatic system supports the body’s immune system by producing white blood cells	<b>I. Circulatory and Lymphatic</b> A. Blood disorders B. Immune system conditions 1. Inflammatory conditions in post-acute stage 2. Various low-grade inflammatory conditions C. Lymph systems conditions D. Vascular conditions E. Other circulatory conditions	<b>I. Circulatory and Lymphatic</b> A. Increase lymph flow in non-edematous tissues B. Removal of edema fluid from tissues C. Increase blood flow in some conditions of impaired circulation or venous stasis D. Induce some vascular changes resulting in a reduction of heart rate and blood pressure
<b>II. Muscular/Skeletal</b> A. Provides structure B. Protects internal organs C. Facilitates movement D. Stores minerals E. Contains the tissue for most blood cell production	<b>II. Muscular/Skeletal</b> A. Injury B. Immobilized, paralyzed, and denervated muscle(s) C. Joint disorder D. Bone disorder E. Neuromuscular disorder	<b>II. Muscular/Skeletal</b> A. Reduce muscle strain B. Massive increase in sensory stimulation C. Interrupting the ‘pain-tension cycle’ that involves ischemic pain D. Relaxation of both the intrafascial and extrafascial fibers E. Increase movement and strength F. Improve stability
<b>III. Respiratory</b> A. Facilitates gas exchange & ventilation B. Filters inhaled air C. Delivers oxygen from the atmosphere D. Rids the body of carbon dioxide	<b>III. Respiratory</b> A. Chronic obstructive pulmonary disease (COPD) B. Asthma/allergy C. Bronchitis D. Emphysema E. Tuberculosis	<b>III. Respiratory</b> A. Improve neck stiffness B. Increase rib cage mobility C. Reduce stress and anxiety levels D. Improve postural drainage E. Improve respiratory and oxygenation
<b>IV. Neurobiological and Psychological</b> A. Highly somatic or psychoemotional arousal B. Physiological response C. Impact on serotonin, norepinephrine, epinephrine, and cortisol levels	<b>IV. Neurobiological and Psychological</b> A. Stress B. Depression C. Anxiety D. Neuron system injuries E. Chronic pain syndrome F. Chronic degenerative disorder G. Infectious disorders H. Seizure disorders	<b>IV. Neurobiological and Psychological</b> A. Increase attention B. Improve symptoms of distress and/or mood C. Improve degrees of tranquility and vitality D. Alleviate effects of trauma E. Facilitate expression of loss or grief



**Table 2: Functional Systems and Massage Technique**

Systems	Swedish	Deep Tissue	Manual Lymphonic Drainage	Neuromuscular	Deep Connective Tissue
I. Lymphatic & Circulatory	X	X	X		X
II. Muscular and Skeletal	X	X	X	X	X
III. Respiratory	X	X	X		X
IV. Neurobiological and Psychological	X	X		X	X

### Criteria for Review

The National Institute of Health (NIH) and the National Institute of Mental Health (NIMH) consider Dr. Tiffany Field to be an expert in research and critical analysis pertaining to massage therapy. Field (1998) concluded that past studies examining the effects of massage contained serious methodological issues. For example, the literature on this topic focused on clinical maladies, and few studies were based on clinical application. In addition, Field previously recognized that typical sampling problems consisted of a failure to include control groups and a lack of random assignment of subjects to treatment conditions. Furthermore, sample sizes were small in most studies, and treatment groups often received more than one type of massage therapy. Another issue is the lack of the use of statistical analyses to examine the effects of massage. However, researchers have recently examined the effects of massage using control groups, random assignment of subjects, appropriate sample sizes, the use of a single type of treatment in the experimental group, and an examination of the data using statistical analyses (Field, 1998). Additionally, a wide variety of populations have been examined, from individuals diagnosed with multiple sclerosis, to those dealing with diabetes, to individuals dealing with chronic pain (Lundberg, 1984; Yates, 1990; Field et al., 1997a). However, it is important to note that the effects of therapeutic massage on the population of individuals dealing with multiple chronic illnesses have not been examined; this is a population that has become more pervasive and could greatly benefit from such treatment.

Physical and psychological problems

are just a few of the issues that people suffering from chronic illnesses must combat. Hernandez-Reif, Field, Krasnegor, and Theakston (2001) confirmed that massage therapy has a positive effect on the physical discomfort experienced by people suffering from chronic lower back pain. Participants in the massage therapy group, as compared to the relaxation group (control group), indicated that they experienced less pain and an improvement in sleep quality and quantity following treatment. They demonstrated improved trunk and pain flexion performance, as well as increased serotonin and dopamine levels. In another study, children suffering from rheumatoid arthritis reported a decrease in pain (both the incidence and severity) and fewer of their activities were limited by pain (Field et al., 1997b). Associated with these findings is a study investigating the effects of massage on individuals afflicted with chronic musculoskeletal pain. Participants in this study reported pain relief (a 50% reduction), resulting in a decrease of their consumption of analgesic drugs (Lundberg, 1984). Building on these findings, Ironson et al. (1996) found that massage therapy enhanced the production of the immune system's cytotoxic cells (e.g., natural killer cells) for men with HIV. These men also reported a significant decrease in anxiety and an increase in self-reported relaxation. Collectively these and other studies (e.g., Farr, Nottle, Nosaka, & Sacco, 2002; Hilbert, Sforzo, & Swenson, 2003) indicate that massage therapy is a viable and effective treatment for chronic pain, which enables the individual to decrease the use of pain medication while strengthening the immune system.

In addition to the physical conse-

quences of chronic illnesses, there are psychological consequences that often develop. One of the serious effects of dealing with chronic illnesses is depression. Field et al. (1992) found evidence that massage therapy is effective in lessening symptoms of depression when they examined the benefits of massage therapy using 52 hospitalized children and adolescents who were depressed and/or dealing with an adjustment disorder. The subjects were either randomly assigned to a massage therapy group (experimental condition) or spent the same amount of time watching a relaxing videotape (control condition). Participants who received massage treatment were less depressed and reported lower levels of stress (as compared to before the treatment, and as compared to the control group). In another study, children suffering from diabetes who received massage therapy over a course of 30 consecutive days reported a decrease in stress and anxiety. In addition, their compliance to taking their prescribed insulin and to eating regularly improved (Field et al., 1997a). Similarly, in a study involving adults suffering from multiple sclerosis, individuals in the massage group, in comparison to the control group (medical-care-only group), reported less anxiety and less depressed mood immediately following the massage sessions. At the conclusion of the study, the massage group had improved their self-esteem, indicated a better body image, and reported a healthier image of their disease progression. In addition, the massage group, as compared to the controls, was functioning at a higher social level (Hernandez-Reif, Field, Field, & Theakston, 1998). In tandem with the above studies, other



**Table 3: Recommendations for Length, Frequency, and Duration of Treatment Sessions Across Number of Illnesses/Conditions**

Number of Illnesses	Time Per Session	Frequency of Sessions	Duration of Treatment
1	60 minutes	Once per week	2–3 months
	60 minutes	Twice per month	
2–3	60 minutes	Once per week	6 months
	60 minutes	Twice per month	6–12 months
4 or more (3 optional approaches in treatment course)	60 minutes	Twice per week	3–6 months
	60 minutes	Once per week	6 months
	60 minutes	Twice per month	6 months

researchers (Field et al., 1996; Ironson et al., 1996) demonstrated that massage therapy can be beneficial in alleviating the psychological difficulties that people diagnosed with chronic illnesses are at risk to develop.

However, questions remain in regard to the application of massage therapy, specifically regarding the appropriate time per session, the frequency of sessions, and the duration of treatment that is most effective to achieve positive health-related outcomes. Researchers have found sustained physical and psychological changes when using biweekly 30-minute massages for a period of 4 to 5 weeks, as compared to individuals who did not receive massage therapy (e.g., Field et al., 1999; Ironson et al., 1996; Field et al., 1997a; Hernandez-Reif, Field, Field, & Theakston, 1998). Some of these researchers studied acute health issues, implying a single condition, such as pregnancy (Field et al., 1999) or muscular soreness (Farr, Nottle, Nosaka, & Sacco, 2002; Hilbert, Storzo, & Swensen, 2003), while other researchers examined the effects of massage therapy on chronic health issues, implying an ongoing, reoccurring condition such as depression (Field et al., 1992), multiple sclerosis (Hernandez-Reif, Field, Field, & Theakston, 1998), and autism (Field et al., 1997c). The focus of the aforementioned studies was to examine the effects on individuals with a single health issue, as opposed to chronic, multiple illnesses. Furthermore, the results indicate that the amount of time and the duration of treatment are powerful predictors of successful rehabilitation. However, researchers have not specifically tested the effects of varying times, frequencies, or durations of

massage therapy; testing these factors, either independently or interactively, impact the therapeutic outcomes of massage therapy. To summarize, the research shows that massage therapy is a practical alternative treatment for people suffering from a single chronic illness. Specifically, it has been demonstrated that individuals who receive massage therapy report lower levels of pain, depression, and anxiety. Moreover, massage therapy positively impacts their self-perceptions and social functioning.

Extrapolating from these research findings, it would be reasonable to hypothesize that massage therapy would result in similar benefits for individuals suffering from multiple chronic illnesses. In accordance with experiencing an increase in physical and psychological wellness, there should be a decrease in their use of pharmaceuticals (e.g., less pain and anxiety medications).

### **Massage Therapy Training**

It is estimated that 20 million Americans have received massage therapy. Currently, there are approximately 50,000 qualified massage therapists who provide 45-million one-hour massages per year. It is apparent that massage therapy is a technique that is becoming more commonly utilized in the United States for both medical and psychological reasons. This type of treatment has provoked important licensing issues, especially when massage is utilized in a medical setting. Most states require that massage therapists complete 500 or more hours of education from a recognized school. Therapists must also pass a state and a national certification exam that is accredited by the National

Commission of Certifying Agencies. This agency began its certification program in 1993, and currently the Psychological Corporation administers the program. The Commission on Massage Training (a national accreditation agency) presently recognizes 60 massage therapy programs. These programs must include training in anatomy, physiology, massage theory, practice, and ethical standards regarding licensure and certification (National Institute of Health, 1994).

### **Massage Therapy Modalities**

There are approximately 80 methods that are currently classified as massage therapy, and approximately 60 of these methods have been in existence for less than 20 years. Researchers believe that various types of massage therapy will eventually be reduced to approximately 5 to 10 techniques (National Institute of Health, 1994).

There are five basic types of massage modalities that are consistently part of certification and training programs for massage therapists in the Western medical community. These therapies have been utilized for more than two decades. The majority of professionals who have been trained and certified by regional or state boards employ these five types of massage techniques:

**Swedish Massage:** This system consists of long gliding strokes, kneading, and friction techniques on superficial layers of the muscles. Generally, the strokes are made in the direction of blood flow toward the heart, sometimes combined with active and passive movements of the joints. Generally, this system is used to promote relaxation, improve circulation, increase range of motion, and relieve muscle tension.

**Deep Tissue Massage:** This type of massage is used to release chronic patterns of muscular tension using slow strokes, direct pressure, and friction directed across the grain of the muscles with fingers, thumbs, and elbows. The movements are applied with greater pressure and to deeper layers of muscle.

**Manual Lymphatic Drainage Massage:** This type of massage is utilized to



improve the flow within the lymphatic system using light and rhythmic strokes. This process is used for conditions related to poor lymph flow, such as edema, inflammation, and neuropathy.

**Neuromuscular:** This method uses light rocking, rhythmic rocking, and shaking movements to loosen joints, ease movement, and release chronic patterns of tension. Compressions, elongations, and light bouncing, as well as rocking motions distinguish this method of movement redirection. The goal is to work on general functional movement, partially by creating a feeling of pleasure in being able to move body parts more freely.

**Deep Connective Tissue Massage:** This technique consists of applying strokes that produce a tangential pull on the skin to the series of reflex zones, or connective tissue zones, distributed over the body surface. This technique is considered to be especially useful for loosening and relaxing tissues as preparatory to therapeutic exercises following surgery or trauma. This type of massage is claimed to have profound effects on the functioning of the autonomic nervous system.

Existing research has not considered which technique is the most effective in treatment for illnesses, and more precisely, which technique works best with a specific illness. Questions remain when applying these findings to help people suffering from multiple chronic illnesses: What kind of massage therapy is suitable for which illness? What would be the specific goals of treatment? These questions require a diagnostic process to determine which type of massage therapy is optimal for a person with a specific illness and what treatment goals should be initiated. Charts were constructed to address the above questions. Systems and conditions that could benefit from massage therapy have been recognized (Yates, 1990), but information has not been placed into an applicable format.

Goals, rationales, and objectives are the measurable techniques used in our current managed-care environment. Table 1, *Functional Systems, Conditions, and Treatment Goals*, was developed to enable the

health care professional to identify the functional system impacted and to provide suggestions or direction regarding the appropriate goals for a health condition. Table 2, *Functional Systems and Massage Techniques*, is designed to give the health care professional further suggestions or direction in recommending a specific type of massage based on the system that is impacted in the condition.

When dealing with individuals with multiple chronic illnesses, it would not be unusual to have more than one condition in a functional system, or to have multiple functional systems impacted. Table 3, *Recommendations for Time, Frequency of Sessions, and Duration of Treatment Across Number of Illnesses/Conditions*, offers suggestions for length, frequency, and duration of treatment sessions for individuals with a single chronic illness and for individuals with multiple chronic illnesses. These recommendations are based on clinical interventions and reports from participants and their health advocates.

Although Table 3 was designed to assist the clinician in making recommendations for the use of massage, there is still a need for future research. Further studies need to include the population that suffers with multiple chronic illnesses. This population is dependent on the health care system for medical support and also needs the positive benefits that massage therapy can provide. In lieu of empirical evidence to support the use of massage with this population, clinical observations indicate that 60-minute massage therapy sessions for individuals with three or more chronic illnesses should result in a decrease in chronic pain and an increase in physical mobility in these individuals.

### **Additional Questions Need to Be Addressed**

One of the goals of this article is to provide both clinical and medical health care professionals with a framework to guide and support the use of massage therapy for individuals dealing with multiple chronic illnesses. In connection with this purpose, a framework has been introduced that directs clinicians to the type,

duration, and goal of massage therapy for certain functional systems. Although this framework is based on experimental research findings and clinical observations, there is still a need to have additional empirical evidence to address the following questions: 1.) Does the use of massage therapy result in the same positive physical and psychological outcomes for individuals with multiple chronic illnesses as it does for individuals with a single chronic illness? 2.) Does massage therapy result in the reduction or elimination of medications and/or hospitalizations in individuals dealing with multiple chronic illnesses? 3.) Are there illnesses/conditions that by their nature, or in combination with other illnesses/conditions, require a certain regiment of massage treatment (frequency and duration) to sustain a specific goal (i.e., pain relief to increase mobility)? And if so, what type of massage therapy would be most beneficial and how often should it be offered?

### **Conclusion**

To review, researchers (e.g., Field et al., 1996; Field et al., 1997; Hernandez-Reif, Field, Field, & Theakson, 1998; National Institute of Health, 1994) have documented the physical and psychological benefits of massage. Massage therapy is also acknowledged for its promotion of wellness and as a technique that supports a lifestyle change in the journey from illness to a healthier "whole person." As a result of the current training and certification processes required for therapists, massage therapy has improved in quality and recognition as an alternative treatment modality.

Empirical studies have demonstrated that massage therapy results in both physical and psychological benefits for individuals dealing with a single chronic illness. In order to best utilize this treatment modality, the clinician must first identify the functional system that is impacted by the illness and then determine which specific type of massage is most appropriate. In addition, the clinician needs to determine the frequency and duration of therapy to optimize clinical outcomes. This process

becomes more complicated when initiating treatment for individuals who are dealing with multiple chronic illnesses. Currently, there is a lack of studies examining the effects and the parameters of applying this therapeutic treatment to individuals with multiple chronic illnesses.

We propose that massage therapies that have been found to be beneficial to individuals with one chronic condition would also be beneficial for those suffering from multiple chronic illnesses. In addition, a framework is suggested to facilitate the process of using massage therapy. Within this framework certain protocols are recommended. Those recommendations include determining the appropriate goals and determining the type of massage therapy that would be most effective. Recommendations are also made regarding the length, frequency, and duration of therapeutic sessions to optimize clinical outcomes. For this framework to be effective, ongoing study and dialogue between researchers and clinicians is warranted. It is at this juncture that both the practitioner and his or her client will benefit from a systematic, empirical study of the sustained benefits of massage therapy as a function of length and frequency of sessions and duration of treatment.

## References

Farr, T., Nottle, C., Nosaka, K., & Sacco, P. (2002). The effects of therapeutic massage on delayed onset muscle soreness and muscle function following downhill walking. *Journal of Science and Medicine in Sport*, 5(4), 297-306.

Field, T., Morrow, C., Valdeon, C., Larson, S., Kuhn, C., & Schanberg, S. (1992). Massage reduces anxiety in child and adolescent psychiatric patients. *Journal of the American Academy of Child and Adolescent Psychiatry*, 31(1), 124-131.

Field, T., Ironson, G., Scafidi, F., Nawrocki, T., Goncalves, A., Burman, I., et al. (1996). Massage therapy reduces anxiety and enhances EEG pattern of alertness and math computations. *International Journal of Neuroscience*, 86, 197-205.

Field, T., Hernandez-Reif, M., LaGreca, A., Shaw, K., Schanberg, S., & Kuhn, C. (1997a). Massage therapy lowers blood glucose levels in children with diabetes. *Diabetes Spectrum*, 10(3), 237-259.

Field, T., Hernandez-Reif, M., Seligman, S., Krasnegor, J., Sunshine, W., Rivas-Chacon, R., et al. (1997b). Juvenile rheumatoid arthritis: Benefits from massage therapy. *Journal of Pediatric Psy-*

*chology*, 22(5), 607-617.

Field, T., Lasko, D., Mundy, P., Henteleff, T., Kubat, S., & Talpins, S., et al. (1997c). Autistic children's attentiveness and responsibility improved after touch therapy. *Journal of Autism and Developmental Disorders*, 27(3), 333-339.

Field, T. (1998). Massage therapy effects. *American Psychologist*, 33, 1270-1281.

Field, T., Hernandez-Reif, M., Hart, S., Theakston, H., Schanberg, S., & Kuhn, C. (1999). Pregnant women benefit from massage therapy. *Journal of Psychosomatic Obstetrics and Gynecology*, 20, 31-38.

Greene, E. (2000). Massage therapy. In D.W. Dovey (Ed.), *The clinician's complete reference to complementary/alternative medicine* (pp. 338-348). St. Louis, MO: Mosby.

Hernandez-Reif, M., Field, T., Field, T., & Theakston, H. (1998). Multiple sclerosis patients benefit from massage therapy. *Journal of Bodywork and Movement Therapies*, 2(3), 168-174.

Hernandez-Reif, M., Field, T., Krasnegor, J., & Theakston, H. (2001). Lower back pain is reduced and range of motion increased after massage therapy. *International Journal of Neuroscience*, 106, 131-145.

Hilbert, J.E., Sforzo, G.A., & Swensen, T. (2003). The effects of massage on delayed onset muscle soreness. *British Journal of Sports Medicine*, 37(1), 72-109.

Hymovich, D.P., & Hagopian, G.A. (1992). *Chronic illness in children and adults: A psychosocial approach*. Philadelphia: W.B. Saunders.

Ironson, G., Field, T., Scafidi, F., Hashimoto, M., Kumar, M., & Kumar, A., et al. (1996). Massage therapy is associated with enhancement of the immune system's cytotoxic capacity. *International Journal of Neuroscience*, 84, 205-217.

Joyce, S., Kuhn, M., Curtin, K., & Murphy, L. (1999). *The integrated health advocacy handbook*. Unpublished document.

Lundberg, T. (1984). Long-term results of vibratory stimulation as a pain relieving measure for chronic pain. *Pain*, 20, 13-23.

National Institute of Health. (1994). *Alternative medicine: Expanding medical horizons*. (NIH Publication No. 94-066). Chantilla, VA: National Institute of Health.

Yates, J. (1990). *A physician's guide to therapeutic massage: Its physiological effects and their application to treatment*. Vancouver, B.C: Massage Therapists' Association of British Columbia.

## About the Authors

**Maria Kuhn, MA, LPC, DAPA**, is a partner in Benefit Performance Associates. She functions as a health and psychosocial counselor and educational advisor. She uses her knowledge of massage therapy in her current counseling practice. Kuhn has established two

multi-faceted counseling centers and is a co-author of the *Integrated Health Advocacy Handbook*. This advocacy program works with individuals dealing with multiple chronic illnesses. She endorses the use of massage therapy as an effective means of helping clients deal with psychological and physical conditions. Kuhn is a Diplomate of the American Psychotherapy Association and has been a member since 1999.

**Dr. Christopher Jones** received his PhD from Northern Illinois University in the areas of experimental and social psychology. He is an assistant professor at Calumet College of St. Joseph and the assistant director of research of the Integrated Health Advocacy Program.

**Dr. Christina Krause** received her PhD from Northern Illinois University in experimental and developmental psychology. Her academic research focused on adults' perceptions of personal control in various areas of their lives. Her research interests include empowerment techniques, psychological and physical experiences of the aging process, and health-related issues. She is an assistant professor at Aurora University and serves as the research director of the Integrated Health Advocacy Program.

**Karen Curtin** is a registered nurse and has a BS in Allied Science. She is also a certified case manager and certified disability management specialist. She has 25 years of nursing experience with a background in orthopedics and neurology. Her primary focus is in rehabilitation and disability management. She is a co-author of the *Integrated Health Advocacy Handbook* and is the Primary Advocate for Sherman Health Systems.

### Earn CE Credit

Take CE questions online at [www.americanpsychotherapy.com](http://www.americanpsychotherapy.com) (click "Online CE") or see the questions for this article on page 54.