# INTEGRATIVE MEDICINE: HEALING BODY, MIND, AND SPIRIT

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ABSTRACT: Integrative Medicine (IM) combines conventional medicine with complementary and alternative medical (CAM) treatments that have been scientifically validated to be safe and effective and for a variety of health conditions. CAM is described as a healing-oriented medicine that involves the whole person and all aspects of life, while emphasizing the therapeutic relationship and the use of all appropriate therapies. This paper explores the current view of IM in the United States, CAM definitions, categories, and physiological basis that support its therapeutic effects. It describes in-depth the mind-body medicine (MBM) category, which has received significant scientific and popular attention in the last decades as a result of its increasing acceptance by the general population and the health care system. Self-care is at the core of MBM; it empowers patients by encouraging them to play an active role in their treatment, recognizing that preventive self-care is crucial to optimal health. MBM practices function as adjuvant therapy for a variety of health conditions and disease prevention.

**Keywords**: Integrative medicine. Mind-body medicine. Complementary and alternative medicine. Healing.

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RÉSUMÉ: La médecine intégrative (MI) associe la médecine conventionnelle aux traitements de médecine complémentaire et alternative (MCA) qui ont été scientifiquement validés comme étant sûrs et efficaces pour divers troubles de la santé. La MCA peut être décrite comme une médecine axée sur la guérison, englobant la personne entière et tous les aspects de la vie, tout en mettant l'accent sur la relation thérapeutique et l'utilisation de tous les traitements appropriés. Cet article explore la manière dont la MI est perçue aux États-Unis, ainsi que les définitions, catégories et fondements physiologiques de la MCA sous-jacents à ses effets thérapeutiques. Il décrit en détail la catégorie de la médecine corps-esprit. Celle-ci a attiré beaucoup d'attention scientifique et populaire au cours des quelques dernières décennies, en raison de son acceptation croissante par la population générale et le système de soins de santé. Les soins personnels sont au cœur de la médecine corps-esprit ; ils font des patients les acteurs de leur santé en les encourageant à jouer un rôle actif dans leur traitement, en reconnaissant que les soins personnels de prévention sont essentiels à une santé optimale. Les pratiques de médecine corps-esprit servent de traitement d'appoint pour de nombreux troubles de la santé et dans la prévention de la maladie.

**Mots clés**: Médecine intégrative. Médecine corps-esprit. Médecines complémentaires et alternatives. Guérison.

**RESUMO**: Medicina Integrativa (MI) combina o conhecimento científico e as terapias da Medicina Convencional com terapias da Medicina Complementar e Alternativa (MCA), de uma maneira segura, efetiva e centrada no paciente. MI é descrita como uma medicina centrada na cura pessoal total (corpo, mente e es-

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pírito), incluindo aspectos do estilo de vida. Enfatiza, ainda, o relacionamento terapêutico e o uso de terapias derivadas da MCA. Dentre as categorias de MCA, encontramos a chamada Medicina do Corpo e da Mente (MCM), a qual tem sido amplamente pesquisada, nas últimas décadas, devido a sua aceitação pelo público em geral e pelo sistema de cuidado da saúde. A MCM enfatiza o autocuidado, como caminho fundamental para o bem-estar das pessoas, ajudando-as a lidarem, criativa e positivamente, em situações de estresse e doenças. De acordo com a MCM, autocuidado e consciência do self são centrais para a saúde e o bem-estar do paciente. Este artigo aborda a visão atual da MI nos EUA, bem como as definições da MCA, suas categorias e as bases fisiológicas dos seus efeitos terapêuticos e preventivos; destaca e descreve mais detalhadamente as características e propostas da MCM.

**Palavras-chave**: Medicina integrativa. Medicina do corpo-mente. Medicina Complementar e alternativa. Cura.

### Introduction

complementary The concept of and alternative medicine (CAM) is embedded in the definition of integrative medicine (IM). Therefore, it is fundamental to discuss CAM before explaining IM. According to Wieland, "CAM is a broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period" (Wieland, 2011, p.51). From this description, Wieland develops an operational definition of CAM to identify relevant Cochrane literature review, and facilitate the dissemination of evidence on CAM. The National Center for Complementary and Alternative Medicine (NCCAM), the leading American Federal Government organization for scientific research on CAM, defines this form of medicine as "a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine" (NCCAM, 2012). Complementary medicine supplements, whereas alternative medicine can be used in place of as well as in conjunction with conventional medicine (CM). (NCCAM, 2012). CAM approaches involve the interconnection between mind-body-spirit, and offer a variety of techniques to address each patient's need.

Conventional medicine, which follows the allopathic biomedical model, is centered on a dualistic dichotomy of body and mind and a mechanistic method to treat disease. Patients' symptoms are extensively examined through interviews to clarify its physical origin. Laboratory tests and imaging studies helps the formulation of a diagnosis and subsequent treatment (Moss, 2003). The main objective of this model is to treat patients and try to restore their health or prevent the worsening of their condition. The expansion of medical knowledge in order to cure more diseases and increase treatment effectiveness are other goals of this model (Rock, 2011). Therapeutic approaches to disease are generally based on pharmacological drugs and surgical procedures (Moss, 2003).

Integrative medicine "combines mainstream medical therapies and CAM therapies in a safe, effective, and patient-centered manner" (NCCAM, 2012). It "is a healing-oriented medicine that takes into account the whole person (body, mind, and spirit), including all aspects of lifestyle, emphasizes the therapeutic relationship, and makes use of all appropriate therapies, both conventional and alternative" (Lemley, 2012). Integrative medicine involves an approach to care which places the patient at its center and addresses the full range of physical, emotional, mental, social, spiritual and environmental influences that affect a person's health (Moss, 2003; The Bravewell Collaborative, 2012).

The literature describes a series of core principles peculiar to IM, which include: 1) emphasis on patient/practitioner partnership in healing course; 2) proper utilization of conventional, complementary, and alternative approaches; 3) focus on the entire person; 4) consideration of all aspects that influence health, wellness and disease (body, mind, spirit, environment, and community); 5) embrace of a viewpoint that does not discard CM therapies or embrace CAM therapies uncritically, but is based on scientific validation; 6) use of natural, effective, less- aggressive therapies; 7) health promotion, prevention of illnesses and treatment of disease as comprehensive concepts; and 8) a belief that practitioners should be examples of health and healing, dedicated to practice self-exploration and self-development (Weil, 2012; The Bravewell Collaborative, 2012; Moss, 2003; Gordon, 1996)

In the United States, the result of The Bravewell Collaborative recent survey of 29 integrative medicine centers indicates that 75% of them reported success utilizing integrative practices to treat chronic pain; more than 50% reported positive outcomes in gastrointestinal disorders, depression and anxiety, cancer and chronic stress treatments (Bravewell Collaborative, 2012). The aforementioned integrative medicine centers are associated with hospitals, health systems, and medical and nursing schools, and offer service to adults, elder, adolescents, children, and end-of-life (Bravewell Collaborative, 2012). Food, nutrition, supplements, yoga, meditation, Chinese traditional medicine, acupuncture, massage and pharmaceuticals, most of which are part of MBM category, are often prescribed by integrative health care professionals. The survey also evaluates progress in prevention and wellness, patient outcomes, emergent standards of care and reimbursement concluding that the practice of IM has an enormous potential for increasing the effectiveness of care and enhancing people's health (Bravewell Collaborative, 2012).

At its core, IM embraces healing. The Merriam Webster Collegiate Dictionary states that healing is "to make sound or whole, to restore to health, to cause (an undesirable condition) to be overcome, to restore to original purity or integrity and to return to a sound state" (Merriam Webster, 2003, p. 574). Essentially, healing implies the establishment of a sense of wholeness. It is a condition voiced by ancient traditions, which encompasses a sense of unity of mind, body and spirit (Dossey, 2002). Deena Metzger remarks that healing is a way of life involving mind, body, spirit, and worldwide communities (Metzger, 2009; Metzger, 2002). Compared with curing, healing is holistic. In healing, practitioners work toward reduction of clients' symptoms, and heal spiritual causes of illnesses, family, society, and environment (Krippner, 2003). Currently, as the assumptions of

the scientific revolution are increased challenged, healing becomes a fundamental way to approach health and wellness.

# **Categories of CAM**

To facilitate a better understanding of a considerable number of CAM modalities, the NCCAM categorized them into four groups: Natural products, manipulative and body-based practices, whole medical system, and mind-body medicine (MBM). Some CAM practices may be part of more than one category. Following are descriptions of each category, including examples of the types of therapies included in each. The MBM category is described in more depth due to its emphasis on self-care and its more widespread acceptance by the medical profession and general population.

Natural products: Within the natural products category is herbal medicine, an ancient form of medicine that has effectively supported human's health for millennia. The use of herbs to treat illness has been documented for hundreds of years). The World Health Organization (WHO) estimates that about 80% of Asia's and Africa's population use traditional medicine including herbals as their primary care therapy (WHO, 2008). Health and well-being in Indian, Chinese and many indigenous traditions around the world are supported by natural herbals products. In the West, much of the traditional knowledge about herbs was lost as people came to rely on conventional medicine and reject herbal remedies. However, a resurgence of interest in alternative health care in recent decades has fueled increasing knowledge about herbs, which are gradually becoming more accepted in the U.S. and other Western countries. In the United States, a 2007 survey by the National Health Interview Survey indicated that 17.7 adults used natural herbal medicine products not categorized as vitamin or minerals (NCCAM, 2012).

Herbal medicine includes vitamins, minerals, probiotics, prebiotics, and other "natural products" derived from a plant or from parts of a plant such as the leaves, flowers, bark, roots and seeds (NCCAM, 2012). Probiotics, which are live microorganisms similar to the ones normally found in human

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digestive tract, are present in certain foods and are also available as a dietary supplement. Prebiotics are nondigestible carbohydrates that promote growth and/or activity of the normal micro intestinal flora.

Special diets are part of the category of natural products. Special diets are prescribed to prevent and treat illnesses, and to promote health. Research on the diet programs of Ornish and Weil, for example, has demonstrated beneficial effects including to "reverse heart disease, turn on health-promoting genes and turn off disease-promoting genes, lengthens telomeres, and slow, stop, or reverse the progression of early-stage prostate cancer" (Ornish, 2012, p. 1). Specific anti-inflammatory diets are recommended as adjuvant therapy for various chronic health conditions (Ornish, 2012).

Orthomolecular therapy attempts to restore and maintain health by increasing intake of substances that are normally present in the body. Empirical evidence show positive effect of high doses of nutrients - coenzyme Q10, vitamins C, E, and B-complex vitamins, beta-carotene, magnesium, zinc, and chromium - for prevention and treatment of chronic diseases and psychiatric disorders (Campos, 2009). The literature also mentions the use of shark cartilage as adjuvant therapy for cancer, and bee pollen for autoimmune and inflammatory diseases (Lane, 1992; White, 2010; NCCAM, 2012).

**Manipulative and body-based practices** refer to manipulation and/or movement of body parts via chiropractic medicine, osteopathic medicine and massage therapy.

Chiropractic medicine is performed by chiropractors who focus on the connection between the body's structure and function and perform adjustments that contribute to the preservation and/or restoration of health. Chiropractors use manipulative therapy as a fundamental approach to health. Research on chiropractic therapy portrays its effectiveness in treating back and neck pain as well as some types of headache (Freeman, 2009). This form of therapy is clinically indicated to treat a variety of health problems including vertigo, nocturnal enuresis in children, and duodenal ulcers but there is no reported evidence of its efficacy for these conditions (Freeman, 2009).

Osteopathic medicine emphasizes the musculoskeletal structure and the concept that all body systems work simultaneously; disorders in one system may have an impact on body functions (NCCAM, 2012). Osteopathic medicine therapy offers prescription drugs, surgery, and manipulative therapy, and uses modern technology to diagnose disease and evaluate injury. Osteopathic medicine focus on health promotion and disease prevention and helps patients to achieve high level of function (NCCAM, 2012).

Massage is a time-honored practice used as an adjuvant therapy for a variety of health conditions. Freeman (2009) defines massage as an "intentional and systematic manipulation of the soft tissues of the body, that is, the normalization of the soft tissues, to enhance health and healing" (Freedman, 2009, p. 364). Massage benefits the musculoskeletal, lymphatic, circulatory and nervous system (Freedman, 2009). As a result of the relaxation response it provokes, massage therapy reduces anxiety and enhances circulation and digestion; it is indicated for patients with chronic diseases, those who are in rehabilitation, and to stimulate the development and growth of premature infants (Freedman, 2009).

**Energy medicine** is grounded on the notion that illness is originated from body's energies and energy fields' disturbances and can be treated with specific techniques toward those energies and energy fields. Energy fields described as biofields, local fields and energy pathways correspond respectively to ancient concepts of aura, chakras, and meridians. Energy medicine "focuses on the fields that organize and control the growth and repair of cells, tissues, and organs, and on ways of influencing those fields" (Feinstein, 2008, pp 48). Energy medicine therapies focus either on energy fields originating within the body (biofields) or those from other sources (electromagnetic fields).

Biofield therapies are intended to affect energy fields that surround and penetrate the human body. These practices include qigong, Reiki, craniosacral, zero-balancing, and therapeutic touch. Bio-electromagnetic-based therapies involve the unconventional use of electromagnetic fields including magnets, pulsed fields, electro acupuncture or alternating current or direct current

#### fields (NCCAM, 2012).

Whole Medical Systems therapies include traditional medical systems, homeopathy, and naturopathy.

Traditional medical systems (TMS) are increasingly finding acceptance among healthcare practitioners and the population in general. TMS includes medical systems from non-Western cultures such as China and India. Of these, the most widespread in the U.S. is traditional Chinese medicine (TCM) Traditional Oriental Medicine emphasizes helping the body reach equilibrium by manipulating in the flow of qi, or vital energy, through the body. The flow of qi is thought to be the most important determinant of health and disease. TCM comprises a group of techniques and methods, including acupuncture, herbal medicine, oriental massage and qi gong. Ayurvedic Medicine is a traditional medical system from India. In Sanskrit the word Ayurveda means "science of life." Ayurvedic medicine places equal emphasis on body, mind and spirit and attempts to restore the innate harmony of the individual. The therapeutic approach includes diet and exercise, herbs, massage, exposure to sunlight, Yoga, meditation, and controlled breathing. Other traditional medical systems are those derived from Native American, Aboriginal, African, Middle-Eastern, Tibetan, Central and South American cultures.

Homeopathy is a Western medical system developed in the 1790's by a German physician, Samuel Hahnemann. Homeopaths use diluted doses of specially prepared plant extracts and minerals to stimulate the body's defense mechanisms and healing processes to treat illness. Homeopathy is based on three principles: 1) "Like cures like," holds that the same substance that in large doses produces the symptoms of an illness can cure it in very minute doses; 2) "infinitesimal dose" is the theory that the more diluted the remedy, the greater its potency; and 3) specificity of the individual who seeks treatment, which holds that individuals with the same symptoms respond to different medicines, based on their unique physiology (Freeman, 2009). Currently, over 500 million people in the world use homeopathic remedies (Freeman, 2009). Two and half million Americans used homeopathy in 1990 (Freeman, 2009). Clinical trials including some randomized controlled trials show effectiveness of homeopathic remedies to treat chronic pain, allergy, asthma, and other medical conditions (Freeman, 2009). Medical Schools in many countries of Europe and South America offer homeopathy in their curriculum. Yet, homeopathy has not gained widespread acceptance in the health care field in the United States, seemingly as a result of insufficient evidence of its effectiveness and a lack of understanding about its mechanism of action.

Naturopathy: The underlying view of this form of medicine is that disease is an expression of changes in the processes by which the body naturally heals itself. It emphasizes health repair rather than disease treatment. Healing practices include diet and nutrition, homeopathy, acupuncture, herbal medicine, hydrotherapy, spinal and soft-tissue manipulation, physical therapies involving electric currents, ultrasound and light therapy, therapeutic counseling and pharmacology. Naturopathic doctors have an intensive study program and serve as people's general practitioners, combining conventional and alternative therapies.

Mind-Body Medicine: MBM focuses on the interconnection between brain, mind, body, and behavior and the ways in which emotions, thoughts, relationships, spirituality and behaviors can affect health (NCCAM, 2012). It is "a revolutionary 21stcentury approach to health care that included a wide range of behavioral and lifestyle interventions on an equal basis with traditional medical interventions" (Moss, 2003, p.3). The MBM approach respects and enhances each person's ability for selfknowledge and self-care (NCCAM, 2010). James Gordon (1996), an internationally-known authority in this field, describes the seven pillars of MBM as follows: 1) uniqueness of each individual, 2) the view of each person as a whole being - physical, emotional, mental, spiritual and social, 3) the value of healing partnership between practitioner and patient, 4) the central role of self-care in one's healing process, 5) openness to other healing systems, 6) group support, and 7) spirituality and transformation (Gordon, 1996). MBM recognizes the interconnection between mind, body and spirit; engages mind, body and spirit in patients' healing processes; gives emphasis on healing vs. curing; and recognizes the importance of stress

in health and disease (Barrows, 2002; Gordon, 1996). A variety of practitioners and a variety of techniques are part of MBM, which often utilizes ancient traditional healing systems with the modern biomedical model to create an integrated approach to health care (Barrows, 2002; Gordon, 1996).

In 2008 during his talk at the Global Medicine Foundation in North Carolina Gordon stated: "The most profound change in Western medicine is the shift from the primacy of conventional treatment with drugs and surgery to self-care...selfcare is primary care and health promotion is a way of life...power comes from peoples' experiences of self-care as much as from their knowledge" (Gordon, 2008). Gordon remarks that self-care is essential to one's sensing of well-being and helps people to deal in an effective manner with stress and illnesses. Self-care and self-awareness have become the heart of health care within the mindbody medicine paradigm.

MBM therapy uses meditation, guided imagery, hypnosis, acupuncture, biofeedback, autogenic training, physical exercise and movement (yoga, tai chi, chi gong, and dance), expressive drawing and writing. Diet and nutrition, group support, and spirituality and prayer are also part of the MBM approach as preventive and adjuvant treatment of a variety of diseases as well as to enhance wellbeing of individuals who are healthy.

Meditation: Two forms of meditation, particularly the ancient spiritual and healing practices of transcendental (TM) and mindfulness (MM) meditation, are extensively investigated in variety of physical and mental health conditions (Carlson, Hundreds of studies have supported 2008). the benefits of TM - a mantra based meditation technique - in reducing stress (Schneider, 2005; Christopher, 2007) depression and anxiety (Eppley, 1989), symptoms of chronic disease (Schneider, 2005; Paul-Labrador, 2006), and improving quality of life (Nidich, 2009). Mindfulness meditation is considered a cognitive-behavioral technique involving a deliberate self-regulation of attention to the present-moment (Ludwig, 2008). Empirical evidence shows physical and mental health benefits of MM on distress, mood and chronic pain management (Ospina, 2008; Teixeira, 2008; Kabat-Zinn, 1990; Kabat-Zinn, 1989). Studies on MM show its benefits to a variety of population with chronic disease such as cancer and diabetes (Kabat-Zinn, 1990; Ospina, 2008; Chiesa, 2007; Rosenzweig, 2007), and significant beneficial physiological effects on blood pressure, heart rate ( Chiesa, 2007), cortisol levels ( Carlson, 2004; Matousek), and immune function ( Carlson, 2007). Empirical evidence also indicates that MM reduces stress and psychological distress (Carlson; 2004; Chiesa, 2009).

Guided imagery is another MBM technique used for decades to alleviate symptoms of physical and mental health problems; it is defined as utilizing one's imagination to create healing mental images which involve all senses to assist the body in healing, maintaining health, or reducing stress and promoting relaxation (Lyon, 2003; Bresler 2003). Physiologically, guided imagery has a remarkable effect on heart rate, blood pressure, respiratory rate, oxygen consumption, brain waves, body temperature, intestinal motility, sexual arousal, and hormonal balance (Bresler, 2003; Rossman, 2003; Academy of Guided Imagery, 2010). The scientific literature on guided imagery applied in clinical settings as an adjuvant treatment for chronic diseases is extensive and includes studies showing its beneficial effect on sleep disturbance (Rosen, 2000; Academy of Guided Imagery 2010), stress (Rosen, 2000; Academy of Guided Imagery 2010), anxiety (Rosen, 2000; Academy of Guided Imagery 2010), and depression to name a few (Rosen, 2000; Academy of Guided Imagery 2010).

Breathing techniques teach people to breathe consciously for the purpose of acquiring an array of general health benefits that enhance quality of life and well-being. The relaxation response, elicited by a breathing exercise, can facilitate a shift in the autonomic nervous system towards a healing, parasympathetic mode (Khalsa, 2001) reducing stress, anxiety (Descilo, 2009), depression ((Descilo, 2009; Janakiramaiah, 2000), psychological distress following trauma (Descilo, 2009) and chronic pain (Mehling, 2005; Sharma, 2003), and increasing degree of optimism (Kjellgren, 2007). A randomized-controlled study of breath therapy versus physical therapy for patients with chronic low-back pain demonstrated that patients improved significantly with breath therapy (Mehling, 2005).

Qualitative analysis data "suggested improved coping skills and new insights into the effect of stress on the body as a result of breath therapy" (Mehling, 2005).

Autogenic training, biofeedback and others aforementioned MBM techniques have a common effect of eliciting the relaxation response from the parasympathetic nervous system (PNS). Recent advances in neurosciences also show the evidence of the physiological effects of MBM techniques through psychoneuroimmunology, neuroplasticity and neurogenesis (Taylor, 2010; Black, 1994; Luders, 2009; Hölzela, 2011).

#### Physiological basis of mind-body medicine

The autonomic nervous system (ANS) is a group of efferent pathways from the central nervous system that innervates and regulates internal organs and glands. It has three divisions: sympathetic (SNS), parasympathetic (PNS), and enteric (ENS). SNS and PNS work increasing or decreasing the target organ functions (Johnson, 1992; Stern, 2001, p.21). In response to stress, the SNS activates, increasing levels of adrenaline, noradrenalin, and cortisol as well as causing increases in heart rate, respiratory rate, blood pressure, muscle tension and other physiological activities (Stern, 2001). After a stressful event occurs, the PNS activates to lower these elements and bring the body back to homeostasis. Activation of the parasympathetic branch of the ANS induces the relaxation response, which decreases heart and respiratory rates, blood pressure, oxygen consumption, muscle tension, and other physiological activities (McGrady, 2003; Fricchione, 1994).

However, if the body remains in a continual state of stress, the person's system may remain in a state of hyperarousal known as the prolonged stress response. This prolonged stress response produces increases in cortisol, blood sugar, insulin and cholesterol, and decreased immune response (McGrady, 2003; Fricchione, 1994). Stress appears to contribute significantly to every major illness and condition including heart disease, diabetes, cancer, infections, chronic pain, anxiety, depression, and PTSD, as well as early death (Moss, 2003). Mindbody medicine practices induce the relaxation response to counteract the effects of stress (McGrady, 2003; Taylor, 2010).

Psychoneuroimmunoendocrinology is an interdisciplinary field devoted to the study of behavioral-neural-endocrine-immune system interactions and the circuitry involved in the omnidirectional conversation among the brain, the endocrine and the immune system (Taylor, 2010). Scientific evidence has been shown that cells of the immune system can produce and are affected by neurohormones and neuropeptides (Black, 1994) and that classic endocrine glands and neurons can produce, and are affected by cytokines (Raison, 2006). The functions of cytokines, neurohormones, and neuropeptides vary according to the location of their action (Raison, 2006). Psychological factors can affect neuroendocrine and immune function (Gilbert, 2003). Immune cells and neuroendocrine glands hypothetically can exert a communal influence on all aspects of neural function and behavior.

Neuroplasticity and neurogenesis studies indicate that the human brain has the capacity to grow and change anatomically as well as physiologically (Luders, 2009), and natural, non-pharmacological techniques including psychotherapy, meditation, exercise and other mind-body techniques can produce these positive changes (Luders, 2009). Scientific evidence shows that new cells, contrary to long-held belief, can be created in parts of adult brains including the hippocampus (Luders, 2009; Hölzela, 2011). Emotions may indeed produce physical changes in the brain and such physical changes may be modified by a variety of interventions (Lazar, 2005). Long-term practice of meditation can increase cortical thickness in areas associated with attention and sensory processing (Lazar, 2005; Hölzela, 2011). Mindbody interventions, self-expression, and exercise, by reducing and transforming peoples' response to stress, may promote neurogenesis and help prevent and treat chronic diseases.

MBM studies show its effectiveness as adjuvant therapy in coronary heart disease, hypertension (Dusek, 2008), and chronic pain (Schneider, 2005), psychological symptoms in cancer patients, psoriasis (Kabat-Zinn, 1998), incontinence, irritable bowel syndrome, anticipatory nausea (chemotherapy),

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asthma, insomnia (Rosen, 2000), anxiety (Eppley, 1989), depression and distress (Eppley, 1989). MBM has become part of comprehensive health care. MBM programs exist in major medical institutions in the United States and other countries around the globe.

## Conclusion

The integrative medicine (IM) movement which emerged in the early1990s, in the United States, due to increased awareness about the ineffectiveness of conventional medicine (CM) to treat chronic diseases, as well as from the increased use of complementary and alternative medicine (CAM) by the general population (Eisenberg, 1998), has evolved. As mentioned earlier, CM focuses on cure of diseases or trauma through pharmacological drugs and surgery, and CAM offers a healing approach to illnesses that, while it may also cure disease, uses a more holistic approach to health and wellness. IM attempts to bridge those two models. IM has become part of comprehensive health care, and has had programs which are present in countless medical institutions throughout the country. IM has become the medicine of the 21st Century.

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