Integrative Health and Healing as the New Health Care Paradigm for the Military

Richard P. Petri, Jr., MD, FAAPMR, FAAIM, COL MC

ABSTRACT

Background: The field of integrative health and healing (IH₂) is emerging out of the dark recesses of “voodoo” stereotypes and into the light as a new and much needed health care paradigm. It is a philosophy of health and healing that seeks to place patients as the preeminent players in health management, disease prevention, and injury recovery. There is an emphasis of patient responsibility, which includes a holistic approach that merges allopathic with complementary medicine.

Objective: The aim of this article is to explore the historical origins of integrative medicine and investigate the future role of the IH₂ paradigm.

Methods: This article reviews current available data and information regarding complementary and alternative medicine utilized in civilian and military populations as the basis for a new paradigm for a system of care—a system that empowers patients.

Conclusions: The current U.S. health care system is reactive and disease-based, with a focus on reductionism. This system is not serving us well. IH₂ is a new model of cost-effective patient-centered health care.

Key Words: Integrative Medicine, Complementary and Alternative, Paradigm, Integrative Health and Healing, Department of Defense, Initiative

INTRODUCTION

CONSENSUS IS BUILDING that our current health care system is unsustainable and ineffective. Therefore, new paradigms need to be explored. This article proposes the path to the new frontier of medicine and suggests the roles of health care providers in the delivery of health and healing for the Military forces. This appears to be a journey into the unknown. However, is it really into the unknown? This is a challenge to think differently, to think globally, both in the context of the global world and in the context of a holistic, multidimensional approach toward health and healing. The time has come to take the concept of “out-of-the-box

thinking” and implement it into practices and programs that will empower, enrich, and energize both practitioners and their clients.

OPERATIONAL DEFINITION OF COMPLEMENTARY AND ALTERNATIVE MEDICINE

Complementary and alternative medicine (CAM) has existed over the past 4000 years. Our ancient ancestors told people to eat roots for illnesses. Yarrow (*Achillea millefolium*) and plants in the mallow family were some of the

United States Army, Chairman, NATO HFM-195 Task Force, Integrative Medicine Interventions for Military Personnel, El Paso, TX.

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FIG. 1. Common yarrow (*Achillea millefolium*) Image printed with permission from © Arthur Haines, Delta Institute of Natural History 2015.

earliest recorded roots used (Fig. 1). In ~1000 AD, roots were considered to be heathen and were replaced with prayer. Some 800 years later, prayer was deemed to be superstitious; therefore, a potion was given. During the twentieth century, the potion was eventually dubbed *snake oil*, while the pharmaceutical companies refined it into a pill and sold it for every ailment. Hence, medications are deemed to be “wonder drugs.” Today, there is a realization that these wonder drugs are synthetic and that roots contain important medicinal properties that are essential for health. So the public is told to eat roots. It is amazing how the cycle has ended where it started 4000 years ago.¹

Over the past 60 years, in the pursuit of happiness, society has become a passive “pill-popping” one. In fact, a pill is expected—no *demand*—for everything. However, recently, there has been a rediscovering of the innate powers of healing that human beings have. No longer is there a need to entrust our health to the pharmaceutical industry—an industry that has largely contributed to passive participation in personal health care. One company after another pushes a “magic pill” for everything that society does not want to experience: pain; sadness; being overweight; etc. It is said that pills will transform us into incredibly good-looking people without us having to do anything. Comedian Ellen DeGeneres pointed out that “we have become so lazy that we don’t even have to swallow the pills because they now dissolve on our tongues.”² At what point will society recognize that citizens are no longer participating in their own health, in their own well-being, and in their own lives?

The National Center for Complementary and Alternative Medicine once defined CAM as a “group of diverse medical and healthcare practices that are not generally considered to be part of conventional medicine.”³ CAM is everything outside what is typically defined as Western medicine. At times, these boundaries can be blurred and somewhat contentious.

By breaking down the words, the concept of CAM can be understood better. *Complementary* refers to the use of

CAM modalities with conventional medicine. The treatments complement or augment Western medicine. *Alternative* refers to the use of CAM modalities instead of conventional medicine. This is an instead-of approach, which limits good practices. A new term has since been developed when referring to CAM; that is the term, *integrative medicine* (IM). IM uses CAM modalities that have some evidence of safety and effectiveness in combination with conventional medicine.³ Let us take it one step further. It has been proposed to replace the word *medicine* in IM with *health and healing* for a new term, *integrative health and healing* (IH₂). Using the word *medicine* often leads many people to believe that health care is still embedded in pharmaceutical solutions to disease. In addition, should the goal of providers not be to assist patients to *Heal* in the process of obtaining *Health*?

INTEGRATIVE HEALTH AND HEALING

One of the core principles of the IH₂ model is patient-centered care. IH₂ places a shared responsibility for health and healing onto the shoulders of both patients and providers, with patients taking the lead roles. This partnership centers on patients, which is quite different from the current disease-centered model. The patient-centered model allows for individualized treatments based on the goals and needs of patients. Patients are the driving force of the health care system not their diseases. As we review IH₂, two fundamental questions emerge: (1) “Why is it important?” (2) “What are some of its pitfalls?”

So, why is it important to consider the IH₂ model for our health care system? In answering that question, the real question becomes: “What are the potential problems with the implementation of this model into our health care system?” First, companies will claim just about anything today under the CAM label. There is huge profit in it. Who does not want to say “goodbye” to illness? Marketing strategies lead many people to believe that illness is not natural, old age is not natural, and—most importantly—drugs are not natural but herbals are. “Baby boomers” are being sold the much sought after “fountain of youth” and “disease-free lives.”

What more could we ask for? If only Ponce de Leon knew it was that simple to find the fountain of youth. Did you know that our friend, the shark, can cure bone pain and that a tree can improve memory and concentration? More impressively, companies advertise that, in addition to curing nearly everything, CAM can put a person into a whole different state. Thus, with 100% cures, the fountain of youth, amazing looks, trim bodies, and euphoric lives, CAM offers a lot.

However, the same claims have been made with conventional medicine. A newspaper advertisement tells the story of a young British child whose life was saved by a superglue.⁴ Yes, a superglue, the stuff that glues one’s fingers together seemingly for life. The superglue was placed into the child’s brain to “plug” the flow of blood into the child’s skull (Fig. 2). Sounds very scientific and evidence based, does it not?

FIG. 2. “Super Glue” Plugs Holes in Toddler’s Brain. Radiograph of superglue used for Galen malformation. Image printed with permission from Dr. Alejandro Berenstein, Chair, Institute of Neurology and Neurosurgery, Mount Sinai St. Luke’s-Roosevelt Hospital, New York City, NY.

In fact, some CAM advertising suggests that all of CAM is “natural.” For something to be truly natural, it must be integrated with the basics of self-care and responsibility. There must be an attunement to the whole instead of a separation into parts. It is the synergy of the parts that creates a new state that is not obtainable from just one part. It is the difference between the sound of a musical instrument and the sound of an orchestra.

LOSING THE DOCTOR–PATIENT RELATIONSHIP

Today, medicine has become a science of ordering tests to diagnose disease. Conventional medicine is not meeting patients’ needs. It is becoming a significant cost to society. Health care costs are >17% of the gross national product (GNP) in the United States and are expected to rise to nearly 20% by 2024.⁵ In addition, death by iatrogenic causes is the third leading cause of death in the United States, with nearly 50% of the drug errors and adverse reactions being preventable.^{6–9}

The field of medicine is evolving because of patients’ demands. It seems that providers are losing the healer’s art and patients are letting these providers know this. Some hospitals across the United States have begun to use algorithms to substitute for clinical decision-making. At times, treatment decisions are based on a magnetic resonance imaging scan or a laboratory value without a clinical examination of the patient, which can be detrimental to that patient. The doctor–patient relationship is being lost—a relationship that has been shown to be a critical component

of healing. Patients want to be treated as human beings not as laboratory tests or diseases. Thus, many patients look outside of conventional medicine. Many patients see CAM as being natural, safer, and more personal. This is a problem. Hence, the medical community must be engaged in this movement toward CAM.

The need to investigate IH₂ can be understood by looking at the current prevalence data. According to the National Center for Health Statistics report for 2002, ≤62% of patients in the United States used CAM treatments in the preceding 12 months before the data were gathered for the report.¹⁰ Patients spend a staggering \$34 billion dollars per year on CAM with an estimated 354 million visits to CAM providers.¹¹ In addition, more patients go to CAM practitioners than to primary care providers.¹²

Why are these trends occurring? Patients are tired of depersonalized treatment. The increase in CAM also stems from the explosion of herbal preparations that manufacturers advertise as being effective for nearly every condition. This is troublesome. The medical field has a responsibility to ensure that patients are choosing safe and effective treatment options through proper evaluation and research. There is a duty to study IH₂ therapies to ensure effectiveness, safety, and cost benefit for patients. Collaborative partnerships are needed to develop the new model of health care.

THE PUSH FOR THE NEW PARADIGM

Scientists and government health officials are starting to understand why IH₂ needs to be studied. The Office of Alternative Medicine (OAM) at the National Institutes of Health (NIH) was started in 1993. The very first large, multicenter trial of CAM therapy was on the effects of St. John’s wort (*Hypericum perforatum*) for depression. It was a \$4 million project led by Jonathan R.T. Davidson, MD, at Duke University Medical Center, Durham, NC, in partnership with 12 academic facilities. The outcome showed that neither the botanical nor sertraline were significantly different than placebo.¹³ This was the start. Since then, the OAM—now known as the National Center for Complementary and Integrative Health (NCCIH)—had increased its annual research budget from ~\$1 million in 1993 to >\$123 million in 2014.¹⁴ The response of science has been impressive. The number of PubMed citations in CAM has significantly increased over the years at a rate of ~25% per year. In response, PubMed (www.ncbi.nlm.nih.gov/pubmed) developed a separate category specifically for CAM.

Our medical education is being adapted to meet the needs of our future providers. In 1999, Jon Kabat-Zinn, PhD, developed the concept of the Consortium of Academic Health Centers for Integrative Medicine.¹⁵ Today, 60 institutions are part of the consortium working toward advancing medical school curricula, establishing standards for

integrative medicine research, and integrating alternative treatments into clinical care.

WHAT IS TRULY “EVIDENCE-BASED”?

There is a struggle within today's health care regarding what are acceptable alternative treatments. What is that acceptance based on? Is it the assumed understanding that conventional medicine is “evidence-based?” Is conventional medicine always evidence-based? In 2009, within the field of CAM, most of the publication types were either *reviews* (23%) or *clinical trials* (20%). Clearly, this is not solid evidence for the acceptance of CAM. When it comes to the “gold standard” of the randomized controlled trial (RCT), only 13% of these publications were listed as RCTs. Compared to conventional medicine, when the PubMed key word was research, only 3% of the nearly 450,000 citations were listed as RCTs. This is not such a good story.

Thus, scientists and researchers have a long way to go with both CAM and conventional medicine research. Therefore, instead of conventional medicine versus CAM, it is proposed that one should consider *proven versus unproven* practices. Is not that what is truly expected? Finally, the need for rigorous evidence-based research for the implementation of a treatment needs to be tempered by the degree of invasiveness and potential harm from that treatment. A simple meditative breathing technique should not require the same level of evidence as that needed for cardiac stent placement. The breathing technique results in little to no harm to patients. Therefore, practitioners can use it at the same time research is conducted. In this case, practitioners' observations can support effectiveness, while efficacy can be studied rigorously. Andrew Weil, MD, refers to this as the “sliding scale of evidence.”¹⁶

No conversation on nonscientifically based treatments would be complete without a discussion regarding the practice of off-label prescriptions. Nearly 75% of pediatric medications are prescribed off-label. This leads one to wonder if our children are not serving as “guinea pigs” for testing prescriptions. An article in *Archives of Internal Medicine* reported that, overall 73% of off-label use has little or no scientific support.¹⁷ Therefore, should conventional medicine be blindly accepted as the standard practice because it is assumed to be grounded in evidence-based research? Clearly, most of it is not. Should the practice of off-label prescribing not be considered as CAM treatment because the practice is nonstandard? Therefore, should all indicated-use prescriptions be considered conventional medicine? Do both not need to follow rigorous scientific approaches for best practices? Perhaps what is being witnessed is a double standard of expectation that CAM modalities must be evidence-based, when, in reality, most conventional treatments are not. Thus, again, re-

searchers have some work to do with respect to translating evidence-based research and implementation into clinical practice.

INTEGRATIVE HEALTH AND HEALING IN THE FEDERAL HEALTHCARE SYSTEM

In 2014, several high-level United States Federal Healthcare offices have included IH₂ modalities into their systems. In 2010, The Army Surgeon General released the recommendations of the Task Force on Pain Management. The overall focus of the report was to provide a holistic, multidisciplinary, and multimodal approach to pain management with the goal of providing optimal quality of life (QoL) for patients who have pain. The medical model proposed emphasizes the patient-centered model instead of the disease-centered model. In the model, patients are active—not passive participants—in their care. The use of IM modalities—such as acupuncture, yoga, manual manipulation, medical massage, biofeedback, and mind-body therapies—were recommended for Tier 1 implementation status. The tiered structure represented a hierarchy of implementation based on current accepted literature supporting efficacy, safety, and widespread use or acceptability.¹⁸

There are other initiatives underway within the U.S. Federal Healthcare System for the inclusion of IH₂ modalities. New agencies have been developed to look specifically at IH₂ modalities as possible treatments for improving delivery of health care as well as the health and well being of patients. The National Intrepid Center of Excellence in Bethesda, MD, in partnership with The Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, opened a holistic integrative center for the treatment of traumatic brain-injured warriors. Another key initiative at The U.S. Army Telemedicine and Advanced Technology Center is the development of an IM service that focuses on optimal healing environments, advanced pain management, and resilience. The U.S. Veterans Health Administration is working on the implementation of the White House Commission for Complementary and Alternative Medicine Policy recommendations. Finally, the U.S. Department of Defense (DoD) is working with the North Atlantic Treaty Organization on the first Integrative Medicine Task Force.

So, how do Military patients compare to their civilian counterparts regarding CAM? Actually, there is not much difference. Low-back pain is the most common reason for the use of IH₂ in both populations.¹⁹ In addition, both use a significant amount of herbals and supplements for self-care. The Military population tends to use a higher percentage of these supplements as performance-enhancers and weight-loss products. Service members are seeking performance enhancements to meet the demanding needs of the Military; these Service members are looking for the optimal edge. The 2005 DoD's survey of health-related behaviors among

active duty personnel showed that $\leq 63\%$ of active duty personnel used herbs or supplements.²⁰ In addition, many of these Military patients seek treatments at out-of-pocket costs, based on a belief that such treatments work and because these patients cannot wait for the Military medical system to meet their needs. Within Military systems, health improvement and lifestyle changes are promoted not as a way of life, but as a necessity of life. Service members in the Military need to be functioning like elite athletes, because Service jobs demand that.

A comparative study on the availability of CAM at selected US DoD medical treatment facilities (MTFs) was conducted during 2005–2009. The study showed an expansion in the types of CAM services available, the number and type of providers providing those services, and a shift in funding from central authorities to facilities over 2005–2009. This survey suggests that leadership understands the value of CAM treatments as being evident by the expansion of those services at a cost to their facility budgets. (See, in this issue, Petri and Delgado: “Integrative Medicine Experience in the U.S. Department of Defense,” pages 328–334.)

A follow up survey of >540 DoD MTFs and Morale, Welfare and Recreation services was completed. This survey examined the prevalence of CAM but also at the leadership’s perspective on CAM and its inclusion in a long-term strategic plan.[†]

In January 2014, the U.S. Defense Health Agency published the report “Integrative Medicine in the Military Health System (MHS): Report to Congress.”²¹ The report showed 120 (29% of 421) MTFs offered 275 CAM programs. Furthermore, it showed that, during the calendar year (CY) 2012, active duty Military members had 213,515 CAM patient visits. The most frequent visits were for chiropractic care (73%) and acupuncture treatments (11%). The most common CAM programs were acupuncture, clinical nutrition, chiropractic care. The overall recommendations of the report were (1) the MHS should evaluate CAM programs for safety and effectiveness as well as cost-effectiveness and (2) the MHS should consider widespread implementation of cost-effective CAM programs meeting guidelines for safety and effectiveness.²¹

THE NEW PARADIGM

The future of medicine depends upon our ability to listen, adapt, and respond in an integrative manner. Simply put, adding CAM modalities to regimens of conventional treatments does not make them IH₂ practices, nor does this make an IH₂ center. IH₂ must emphasize wellness and the healing of the whole individual and the supportive community, uti-

lizing all medical system modalities in a dovetailed approach with one other. IH₂ leverages all the interactive relationships among treatments, patients, families, providers, and staff members as well as the subtle often-overlooked experiences of all involved participants. IH₂ can represent the new system of care, the paradigm shift from reactive disease-based medicine to one of health-enhancing patient-centered care, from reductionism to holism. Hippocrates wrote that physicians should seek to “cure sometimes, heal often, comfort always.”²² Ancient healing practices emphasized the important links among the mind, body, and spirit. Only in the Western medical view do we separate these. Hippocrates also wrote that “the natural healing force within each of us is the greatest force in getting well.”²³

IH₂ modalities are often low-technology low-cost interventions that incorporate mind, body, spirit, and soul. Recall that our current medical practice is >17% of our GNP and rising.⁵ The annual cost of U.S. Military health care has more than doubled since 2001 from \$17 billion to \$35 billion dollars. In 2014, the cost was estimated to nearly double

FIG. 3. Berlin, Germany (E): A Ditch, Reminiscent of World War I Trenches, Runs Along the Edge of the “Death Strip” in the Rudow District of East Berlin. The Communist Evacuated Residents and Razed Buildings in the Strip to Provide Border Guards with a Clear Field of Fire at West Germans Attempting to Escape to Freedom in the West. Source: USIS Bad Godesberg/H-38946. Courtesy of National Archives Identifier: 6037811 Local Identifier: 306-PS-D-61-11909.

[†]Petri et al. Survey of complementary and alternative medicine services within the Department of Defense. Submitted for publication.

again for 2015. This will represent 12% of the U.S. defense budget.²⁴ Health care could jeopardize global Military readiness. Therefore, IH₂ could offer a means of decreasing the rate of rising medical costs while helping patients help themselves.

Is this paradigm shift evolutionary or is it a revolutionary return to our roots? It is both. It is evolutionary in the sense that many technologies and procedures have been refined and perfected with time's passage, but the shift is revolutionary in the sense that we are now adopting ideas rooted in the ancient past. It is clear that the current system is not working. Few people will disagree with that. Thus, change must occur. The terminology to describe the new paradigm must change as well.^{25–27} The current time is disruptive, disorganized, and chaotic, but it represents a tipping point of a new age in medicine. Health care solutions require revolutionary thinking. Now is the time to think outside the box and create new ways of dealing with old problems. The past can bring about a new future. This all begins in the mind. IH₂ emphasizes the importance of the self: self-improvement; self-empowerment; self-healing; self-awareness, etc. It allows our warriors to “sharpen their swords” and push themselves to the edge. Through self-responsibility, our Service members

can become a more self-confident and balanced force that is empowered to deal with adversity, both on and off the battlefield.

Progressing to a new model leads to a change in our cultural tapestry. The Military and medical fields are rich with culture. Service members are the current-day warriors. The Military represents a brotherhood and sisterhood of focus, discipline, determination, and tenacity—all to serve a greater purpose. The U.S. Army Warrior Ethos is a way of life that applies both to a person's professional life and personal life. Military medical providers cannot leave fallen comrades behind medically. Being embedded in the ways of the past will prevent looking toward the future. Innovation requires forward thinking. There needs to be an openness to change. However, there needs to be caution about openly accepting change for change's sake. In 1940, Mount Holyoke College Professor Walter Kotschnig told his students keep their minds open— “but not so open that your brains fall out.”²⁸

So, how can health care return to the basics? The diverse cultures can be leveraged to meet the challenges of the future. The lessons from the past must be learned and applied. Mistakes are often repeated with agonizing regularity. In the beginning of World War II, Militaries approached the battlefield utilizing the same failed philosophy of World War I. The millions of deaths in World War I should have taught the Military leaders that trench warfare was not an effective strategy (Fig. 3). Therefore, often, the road map to the future

FIG. 4. Tornado in a glass. 3-D render of swirling storm in glass of water. Image printed with permission from © grandeduc.

FIG. 5. Is it a floor or a balcony? In this image there is the illusion that the floor and ceiling floor are same. Image printed with permission from David Macdonald © THE TERRACE.

is written by the past. During the Vietnam War, Transcendental Meditation™ was shown to be extremely effective in the treatment of post-traumatic stress disorder. So why is there reluctance to use this technique today? Just how many articles on the front pages of newspapers and as news broadcasts' lead stories will it take before a realization that today's treatments are not meeting the needs of our warriors?

Upon passing through the maelstrom of change, calm will emerge from the storm. The right kind of change will bring about exponential progress. As examples, the world has been through the ages of enlightenment, industry, atom, space, and information, resulting in substantial improvements in QoL. Now is the new age of mind, body, spirit, and soul. Health care is at the cusp of transformation. It can begin with the paradigm of IH₂ model. This is a new medicine resurrected from our ancient past. An inscription at the base of a Robert Aitken statue in Washington, DC, reads: "What is past is prologue." Thus, the past is simply the introduction to the future. Therefore, this returning to the basics may not be a return but rather a following of the blueprint set up by the past. IH₂ allows patients, providers, and society to return to the art of medicine, the doctor-patient relationship, and the emphasis on self-care and responsibility.

Conventional medicine produces disempowered and passive patients who are stuck in a disease-centered model. It is a deconstructive process that focuses on cellular and organ-level pathology instead of on the whole person. In sharp contrast, IH₂ seeks to understand the whole person's complex interplay of internal and external systems. IH₂ represents the critical piece in the health care puzzle, because IH₂ is embedded in the philosophy of holism. IH₂ recognizes interconnectedness. Finally, the head is being put back onto the body. The natural ability to heal is an anchor and critical foundation for health. Providers must educate their patients about safe and effective IH₂ options and allow these patients to take the lead in their quest for health and healing.

THE FUTURE

The storm of change is approaching. Things will appear to be chaotic with deterioration and degradation of what is held as the status quo. It is this tornadic whirl that leads to a question: "Is this the right direction? (Fig. 4). The unknown is entered. Think of a lost boat on a calm sea. It moves very little and wanders aimlessly unless someone rocks the boat. So, could the calm sea represent the status quo? Could the boat represent the current practice of medicine and the paradigm shift represent the rocking of the boat? Can the occupants collectively, in a concerted fashion, actually move the boat in a meaningful direction? Jennifer James, PhD, a noted anthropologist once stated: "We are moving so fast that we cannot see the new cultural tapestry we are weaving, we can only see the shredding of our old one" (personal communication on June 8, 2015). This scares us.

Albert Einstein stated that the definition of insanity "is doing the same thing over and over and expecting different results."²⁹ So, what will it take to stop repeating practices that are not working? The reluctance to change comes from a hesitation to move from what has been comfortable to something new. The current chaos could actually be the tipping point before the new world, the new medicine. It could be the storm before the calm.

Both medicine and the Military are steeped in centuries of culture that have served both well. However, it is these very cultures that make it difficult for change to occur. Thus, change comes with difficulty and suspicion and can only be achieved with a shift in perspective. Escher's pictures often show the perspective of two opposite situations happening at the same time? (Fig. 5). Therefore, could alternative medicine not coexist with conventional medicine at the same time? Would that not be the concept of IH₂? In order to go forward, change must occur. Change comes from a willingness and inquisitiveness to see the future today. Change comes from a vision of what can be.

Together, the best health care system for the best global force can be achieved through partnerships, common goals, and, most importantly, by recognizing the needs of the clients. A disease does not define a patient, but rather the patient is an individual with a condition asking the medical community for opinions and guidance. This is the shift from doctor leader to patient-centered, from organ system to wholeness, from disease to health and healing. IH₂ defines and embraces this shift in medicine accurately. The shift begins now—are you getting ready?

AUTHOR DISCLOSURE STATEMENT

COL Richard Petri, MC (MD) is an Active Duty Service Member in the United States Army and was appointed to the NATO panel HFM-195 ("Integrative Medicine Interventions for Military Personnel") as a technical team member. He was selected to the Chair of the panel in September 2013. Resources from the United States Army supported the travel expenses to the first four team meetings. The fifth meeting lodging expenses were partially supported by a grant from the Geneva Foundation. The remaining expenses were paid through personal resources. No competing financial conflicts exist.

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Address correspondence to:
 Richard P. Petri, Jr., MD, FAAPMR, FAAIM, COL MC
 United States Army
 Chairman, NATO HFM-195 Task Force
 Integrative Medicine Interventions for Military Personnel
 5005 North Piedras Street
 El Paso, TX 79920

E-mail: richard.p.petri.mil@mail.mil;
 richard@petrijr.com