Spiritual Fitness

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ABSTRACT Spirituality, as distinct from psychological and other variables, is now recognized as a crucial element in the total force fitness of service members. There is substantial literature available for the development of evidence-based policies and programs for spiritual support and the treatment of spiritual distress and moral injury. These developments should be integrated within existing programs, and this will require that commanders be proactive. Chaplains provide a primary resource and should be enabled to operate within integrated teams of support personnel. This has not been the case historically, and only the leadership of commanders can bring this about. Programs should utilize existing instruments for monitoring purposes, but should also include proactive plans for service members before deployment and whenever events such as large-scale civilian casualties increase the overall risk of spiritual distress. Behavioral science experts should be utilized in a collaborative role with chaplains in developing spiritual support. Leaders should receive elementary training in cultural competence and spiritual diversity to provide the needed support for spiritual fitness program development.

INTRODUCTION

Operational Demands That Require Consideration of Spiritual Fitness

Today, counterinsurgency and asymmetric warfare have become the new norm in the context of full spectrum (offensive, defensive, stability, and support) operations. The Quadrennial Defense Review 2006[1] emphasizes that the global operational environment requires unprecedented emphasis on operational balance. The Joint Operating Environment report[2] predicts that future integrated close combat will place increased demands on the physical, psychological, and spiritual domains of fitness. This will require that leaders be well versed on the human dimension of combat, including spiritual dimensions and ethical decision making at all personnel levels.

For many on the front lines, spirituality and religion are the only "safe haven" amidst intense operational or combat experiences that can test one's faith. The danger of spiritual and moral trauma is real, and it can initiate a downward spiral of physical, psychological, and behavioral problems in the service member. We lack proven methods to build spiritual fitness, prevent moral injury, and heal the spiritually distressed in the military setting, but research in these areas is growing. For example, Litz et al. have recently reviewed the literature, defined terms, and offered a working conceptual framework and a set of intervention strategies for repairing "moral injury."[3]

The role of religious ideology in contemporary conflicts and the increasing spiritual diversity of the U.S. Armed Forces, make leadership's attention to spirituality more pressing and more challenging at the same time. As noted in this article, there is much in spirituality that can encourage unit cohesion and commitment to mission. But religious and spiritual differences are also well known as potential flashpoints for conflict. Commanders must develop policies that will promote a coherent and effective approach to the spiritual needs of service members. This is essential for maintaining readiness.

The Field of Spirituality and Health

The scientific study of spirituality and health is a very new field. Figure 1 illustrates the five-fold increase in research on spirituality and religion, which from 1990 to 2007 reflects the growing interest in this topic within healthcare.

Because the field is so new, most research has been basic rather than applied. Metrics for spiritual belief, practice, and experience have been developed, but research linking these factors to fitness and health is only beginning. There is a general consensus that such links exist and are clinically important,[4] but the evidence base delineating these associations and developing practical applications is in its infancy.[5] Given the inherently subjective nature of spirituality and the inability to measure spiritual fitness directly and objectively, a rigorous mixed-methods approach is required for their evaluation. The lack of systematic qualitative research in this field, however, is an important gap.

METHODS/APPROACH

In preparation for a December 2009 conference entitled "Defining Total Force Fitness for the 21st Century," we collaborated with a multidisciplinary "spiritual fitness working group" on the creation of an article that explored how spiritual fitness might contribute to Department of Defense (DoD) goals such as unit cohesion, performance, readiness, resilience, and force protection. The conference was focused on developing a conceptual framework and metrics for total force fitness and formed the foundation for a practical Chairman of the Joint Chiefs of Staff Instruction (CJCSI) on total force fitness. This diverse working group was composed of academic experts, chaplains representing each service, and representatives of other DoD components, including the

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Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE).[6] Entitled "Spiritual Fitness and Ethical Fitness in the Armed Services," the preconference article was intended as "...only a beginning toward integrating the key components of spirituality and ethical fitness into the total fitness initiative."[7] Starting with this preconference article and the CJCSI, we then reviewed the scientific literature on spirituality and health to provide an evidence base that would support the spiritual fitness goals of the CJCSI.[8]

Our literature review included the 1,600 studies identified by Koenig et al. in their Handbook of Religion and Health (2001),[4] the results of several searches of Ovid MEDLINE on spirituality and religion, references from the researchers' files, and a series of searches specifically for scales and measures for spirituality. The resulting database was composed of more than 3,000 titles.

As additional sources for the postconference literature review, we used databases currently in development from (1) a literature review on mind–body practices and therapies for treatment and prevention of stress- and trauma-related illnesses and conditions in military, veteran, and first responder populations, and (2) a systematic review of integrative skills training programs for the management of stress and associated disorders. These databases contain 850 and over 11,000 articles, respectively.

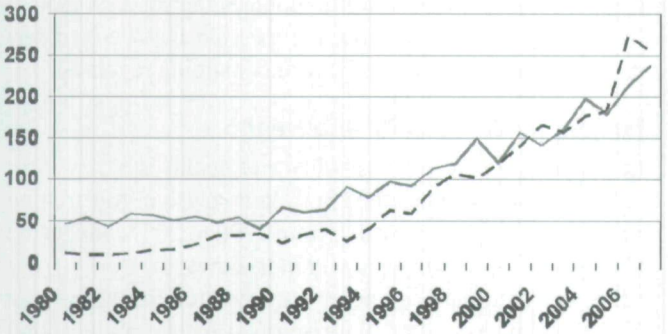

FIGURE 1. Growth in research on spirituality and religion

FINDINGS

Operational Definition of the Fitness Domain

The Meaning of Spirituality

The definition of "spiritual" and related terms has been a serious problem in research on spirituality and health. Care providers often use the words spiritual and spirituality broadly to capture an array of domains including values, feelings, aspirations, and so forth, typically reflecting common theological assumptions about the human spirit (see Table I). This can be appropriate and useful in the context of care, such as by military chaplains. Therefore, this kind of pragmatic definition was used in the CJCSI on spiritual fitness. However, in research it is necessary to employ a definition that is more specific and standardized (to allow comparison among different studies and different populations) that helps to distinguish spirituality from psychology, that is applicable to its varied manifestations in diverse religions, and that reflects ordinary usage of the term by the subjects being studied. Below, we review the definitions of *spiritual* and its cognates that are common English language usage and that are most useful in spirituality research:

In ordinary English usage, spirit, spiritual, and spirituality have had stable meanings for centuries:

Spirituality: the quality or condition of being spiritual.
Spiritual: Of, pertaining to, or affecting the spirit or soul, especially from a religious aspect.

TABLE I. Definitions

Term	Definition	Source
Spiritual-Lexical Definition	"Of, pertaining to or affecting the spirit or soul, esp. from a religious aspect."[6]	Dates to Middle English, roughly the 11th through the 15th centuries.
Spirituality- Theological Definition	"... The sum of all the uniquely human capacities and functions: self awareness, self transcendence, memory, anticipation, rationality (in the broadest sense), creativity, plus the moral, intellectual, social, political, aesthetic, and religious capacities, all understood as embodied."[78]	
Spirituality- Typically Ambiguous Clinical Definition, After Tillich	"That which allows a person to experience transcendent meaning in life. This is often expressed as a relationship with God, but it can also be about nature, art, music, family, or community–whatever beliefs and values give a person a sense of meaning and purpose in life."[79]	Christina Puchalski, MD, of George Washington University, one of the leading researchers in spirituality and health.
Spirit	"The animating principle in humans and animals. 2. The immaterial part of a corporeal being."[6]	Dates to Middle English
Spirit- Theological Definition	"The unity of power and meaning.... spirit appears fully only in humanity, in freedom, self-transcendence, morality, rationality, creativity, selfhood...."	Paul Tillich, (1886–1965), among the most influential of 20th century theologians.
Religions	Those community institutions such as Buddhism, Christianity, Judaism and Islam that are based on spirituality.	
Psychospiritual	Refers to the larger realm where spirituality intersects with other domains, especially psychology. Acknowledges that the psychology/spirituality distinction will be drawn very differently by different people.	(For example, belief, meaning and purpose are words often associated with spirituality that also have purely nonspiritual meanings.)

Spirit: (1) The animating principle in humans and animals. (2) The immaterial part of a corporeal being.[9]

Religion refers to spiritual institutions (e.g., Christianity, Buddhism, etc.). Therefore, spiritual fitness would mean fitness of "the spirit or soul, especially from a religious aspect." Spirituality, then, depends on diverse beliefs about the soul, theological debates, and so forth. Within particular religious and spiritual traditions one finds very different definitions of spiritual fitness, such as being saved (evangelical Christian), being in a state of grace (Catholic), and being able to stay "in the moment" and maintain a self-transcendent view during stressful situations (Buddhism). To assert that some meaning of these concepts is correct, that it is *true spirituality*, would endorse some spiritual viewpoints while dismissing others. That would be inappropriate to scientific inquiry as well as to the U.S. military. Given the spiritual diversity of the United States, each instance of the spiritual must be interpreted within the context of a particular tradition. All of these traditions share fundamental aspects of the meanings of spirit, but each has unique interpretations of its referents and associated values. This presents several difficulties for the study of spirituality and health, especially in the military.

The most common response to the "belief problem" has been to follow the pattern of Christian Existential theology in making definitions that are more secular, and less specific. These definitions tend to make all humans and all human behavior spiritual. Many believers hold this view, but these universalizing definitions are the reason that many investigators have said that the meaning of spirituality is "fuzzy"[10] and "vague and contradictory."[11] These definitions also conflate spiritual, religious, and psychological factors, reducing the validity of many outcomes studies; when a psychological factor such as optimism, often associated with spirituality, is employed in spirituality metrics the results are confounded, and often become tautological. When the meaning of research terms deviates from everyday usage, the resulting studies lack ecological validity. These conceptual difficulties are reflected in the common complaint that discussions of the importance of spirituality suggest that very spiritual people are somehow "better" than others, or that one must be spiritual to be moral, ethical, and compassionate. It is the use of excessively broad definitions that universalize spirituality that creates this problem, and this can be especially damaging in a pluralistic context, as in science and military settings.

Spirituality Is Not the Same as Religion

Although religions are institutions based on spirituality, the importance of distinguishing religion from spirituality is widely recognized by researchers.[12] For some, all spiritual belief and practice lie within the framework of their religion. For others, 20–30% of Americans, their spirituality is largely or entirely outside religion,[13,14] although some occasionally attend religious services. A Pew Forum survey (December 2009) found that 24% of Americans say they attend services of at least one faith other than their own. Spiritual and religious pluralism is the norm in the United States, and has been since Colonial times.[15,16] Among the powerful influences shaping American religious heterodoxy are the influential spiritual traditions of Asia, principally Buddhism and Hinduism (especially yoga), and spiritual experiences.

Psychospiritual Fitness: The Intersection with Other Domains

Because spiritual factors per se make sense only within specific spiritual traditions, as noted above, spirituality affects fitness in ways appropriate to the military primarily as it interacts with other domains, especially psychology. Research has established strong links between spirituality and physical, psychological, and medical health,[4,17–20] most of them positive but some of them negative, depending on the specifics of belief and practice.[20] Many of these outcomes are at least in part attributable to the behavioral and social ramifications of spirituality.

The term "psychospiritual" refers to this larger realm where spirituality intersects with other domains. *Psychospiritual* acknowledges that the psychology/spirituality distinction will be drawn very differently by different people. (For example, belief, meaning, and purpose are words often associated with spirituality that also have purely nonspiritual meanings.) While adopting policies favoring one spiritual tradition over another would be wrong, it is appropriate to develop coherent psychospiritual policies. We have adopted the conventional use of "spiritual fitness" to refer to "psychospiritual fitness," because it is so widely used. But for all technical purposes, the distinction should be kept in mind.

An example of how spiritual practices can encourage cohesion (by facilitating tolerance) as well as improve fitness is mindfulness-based meditation. Although developed from a Buddhist practice, this meditation is now widely taught in a secularized form[21] and has been shown to have wide-ranging benefits therapeutically as well as for wellness and performance enhancement.[22–27] It is possible to tailor mindfulness meditation to one's own religion, making it one's own and, according to some studies, enhancing its effectiveness.

A structured mindfulness training program that has demonstrated feasibility and preliminary effectiveness for improving attentional functioning and reducing the negative effects of stress,[25] mindfulness-based stress reduction (MBSR) is currently being offered at multiple Veterans Administration (VA) hospitals to Operations Iraqi Freedom and Enduring Freedom (OIF/OEF) veterans returning with post-traumatic stress disorder (PTSD). Based on Mindfulness-Based Stress Reduction (MBSR) and tailored to the predeployment training cycle, the Mindfulness-Based Mind Fitness Training (MMFT) program includes evidence-based techniques and exercises for enhancing mental agility, emotion regulation, attention, and situational awareness. Pilot research on the MMFT program in Marine Reservists suggests that MMFT may bolster mental fitness and resilience against stressors.[28]

An important caveat to the secularization of traditionally religious practices is the danger of contradicting the intention and goal for which these practices were originally developed, by removing their historical context and spiritual and moral foundations. While the archetype of the "spiritual warrior" pervades the history of several religious traditions,[29] extracting just

the methods themselves can have dire individual and organizational consequences. For example, encouraging the use of Zen meditation techniques used by the Samurai to eliminate fear of death and guilt over killing,[30] might suggest hypocrisy given combatants' approaches in the war on terrorism. The risk of practicing these techniques in a way that is immoral or antithetical to their roots[31] can be minimized by including in skills training programs appropriate discussions of spiritual context and consequences of these practices. When the authors presented this ethical dilemma to respected authorities in Buddhism (the religious and philosophical tradition from which many of these meditative practices are drawn), these experts advised focusing on their potential effectiveness in post-deployment recovery (Fritts M. Personal communication with Ven. Tsoknyi Rinpoche III, facilitated by Ven. Tenzin Lhamo, 2010).

Description of Components of Spiritual Fitness

The components of spirituality are traditional rather than scientific categories. Therefore they overlap, interpenetrate, and have somewhat different meanings in different traditions.

Spiritual Beliefs

Beliefs are ideas held to be true. Belief in a non-physical dimension of life is a defining element of spirituality: belief in the existence and goodness of God, and belief that the human spirit is real and survives death are central to most traditions. Spiritual values, and the core issues of meaning and purpose in life, are also beliefs. Spiritual beliefs are basic to many peoples' understanding of the world and their place in it. These beliefs provide support in times of stress, and threats to these beliefs cause anxiety and threaten performance. Psychospiritual fitness requires not only positive and helpful beliefs, but also that those beliefs be stable under stress. Leadership and well-trained support staff, especially chaplains, are necessary to that stability during and following combat. This is not a simple task, because of the religious and spiritual diversity of modern troops. Commanders will need guidance regarding this diversity. With leadership appropriate to the spiritual diversity of the force, spirituality can be a powerful force for unit cohesion. Without proper leadership, spirituality can be a divisive factor that reduces cohesion and readiness.

Spiritual Values

"Value," from the Latin *valere*, to be worth, refers to that which makes something desirable. Human values are rules for making right decisions in life. Morality and ethics are sets of such values, varying somewhat from one culture or social group to another. Moral codes serve positive social purposes, helping to make interactions predictable and to recruit support to avoid or redress injury. In the military, moral conduct is crucial to unit cohesion and to compliance with rules of war. Although morality is logically independent from religion,[32] spiritual endorsement of particular values is universal and strongly motivating.

Spiritual traditions offer endorsements of some secular moral rules (e.g., honesty), add others (e.g., faith in God), and challenge others (e.g., pacifist religions). Strong morals in a religious framework have been shown to promote health by reducing unhealthy and risky behavior (alcohol consumption, smoking, risky sexual behavior)[4] thus supporting fitness. Good morals, defined from a spiritual standpoint, are often taught as requirements for reward in the afterlife, providing strong motivation for compliance among believers.

Spiritual Practices

"Military commanders are responsible to provide for the free exercise of religion of those under their authority."[33]

Each of the service branches charges its commanders to provide for the free expression of religion and exercise of spiritual practice, with the caveat that these activities do not interfere with mission situations and requirements. These spiritual practices are the behavioral expression of personal spirituality, and they take varied forms that may or may not follow specific religious traditions. Spiritual practices from the Abrahamic religions (Christianity, Judaism, and Islam) include prayer, sacred scripture study, worship, music, fasting, practicing charity and service to community. Spiritual practices from nontheist belief systems include social activism, work, education, and mindfulness.[34]

Spiritual practices also include mind–body techniques practiced for thousands of years by warriors throughout the world, particularly in Eastern cultures, including techniques to enhance the mind's capacity to affect symptoms and physical functioning. Examples are breathing exercises, positive mental imagery, systematic relaxation, prayer, meditation, yoga, and creative outlets such as art, music, or journaling. Mind–body skills can be easily practiced by service members with little or no equipment and in a variety of settings. Small teams and units can include mind–body skills training in standard pre-deployment routines to improve functioning and performance, enhance concentration and focus, and prevent and treat a variety of stress-related diseases.[25,26,28]

Core Beliefs: Purpose and Meaning

Who am I? Why am I here? What is my purpose in life? What happens after I die?

These cosmic enigmas about the meaning and purpose of life are ancient and powerful existential questions. From the materialist (i.e., absent spirit) point of view, the answers are simple and obvious: the purpose of your life is what you make it, and after you die nothing happens. Spiritual beliefs offer more complex, and usually more consoling, answers. Belief that spirit is real, and that there is a Divine plan behind the seemingly random events of the world, gives rise to meanings with far-reaching implications, "making sense of it all."

In combat situations, perpetrating, failing to prevent, or witnessing acts that transgress deeply held values can shatter an individual's beliefs about the purpose and meaning of life, challenge belief in God, induce moral conflict, and even precipitate an existential crisis: often called "moral injury" in the literature.[3] For the spiritual person, undeserved suffering, whether illness or injury, raises the question of how God could allow such a thing ("theodicy"). This question may become central to service members who take part in or witness experiences that potentially shatter deeply held spiritual values.

Therefore, leaders and chaplains have an obligation to help foster an understanding and acceptance of suffering that involves mystery and may be beyond complete human understanding. Leaders can help alleviate moral conflict and injury by using the services of military chaplains; encouraging advance preparation for the horrors of war through facilitated pre-deployment discussions with family members and loved ones about the possibility of moral conflict, severe disability and death; using after-action reviews to assist service members who have seen or done things that lead to serious moral conflict; and honoring the fallen through memorial services.

Self-Awareness: Reflection and Introspection

Introspection and self-awareness can be cultivated through contemplative practices from varied religions, as well as through secular techniques of meditation. One example is mindfulness training, which involves developing an objective awareness of one's own thoughts and feelings. With group instruction and regular individual practice, mindfulness training can enable service members to respond to situations and make decisions from a reflective and objective mindset, rather than out of fear, habit, or emotionally charged reactivity. Used in the U.S. military since 1985, mindfulness training can also enhance pre-combat negotiations and national security decision making by cultivating cultural, situational, and self-awareness[35] and introducing a "choice point" between stimuli and habitual, unconscious and emotional reactions,[36] thereby enabling decisions that are more supportive of mission goals.[37]

Cultivating and maintaining self-awareness, introspection, and reflection can require regular, focused practice over relatively long periods of time. By contrast, some meditative practices (such as mindfulness training and Christian prayers such as the Jesus prayer or the rosary) are very portable and may be done in the midst of highly distracting situations such as combat. Mental training can blend well with the "hurry up and wait" aspect of military operations and the need to maximize downtime ("white space") between tasks, in an effort to conserve and protect the quality and quantity of personal resources within the force.[38,39] With encouragement from leadership, service members can find a connection in meditative practice with their peers from different spiritual traditions. The divisive alternative is to see the practices of others as "superstition" in contrast to one's own "authentic" spirituality.

Transcendence: Relationships Beyond the Self

Central to Judaism, Christianity, and Islam is the command to believe in and love God as well as to "love your neighbor as yourself." Eastern philosophies and religions such as Buddhism highlight the importance of transcending a limited view of the self as an isolated, self-sufficient entity. The ideal view is one that sees all humanity as interdependent and interrelated, and therefore naturally replaces insatiable drives to fulfill individual interests with a prosocial and compassionate attitude that cherishes the well-being and happiness of others, even more than personal happiness. These values point to transcendence of self, both in relation to the Divine and to fellow humans. The association of such transcendent relationships with ultimate spiritual values is a powerful motivation to prosocial behavior for the believer.

Transcendence need not be vertical, relying on a belief in God. Spiritual atheists, for example, often acknowledge relationships or nature as their higher power. Transcendence is allegiance to something greater than oneself, not necessarily to a particular power. All branches of the armed services require the individual to acknowledge this process through connecting to the greater good of the unit. This horizontal transcendence has an outward focus that engenders citizenship behaviors, team spirit, and service for the collective good. The tri-service ideal of deference of self-interest is similar to religious ideals of self-sacrifice and is exemplified by the "unit before self" motto and the fourth tenet of the Army's Warrior Ethos and the Soldier's Creed: "Never leave a fallen comrade."[40]

The theological virtue of charity, derived from the Latin *caritas*, meaning affection or love, promotes transcendence by urging compassion, generosity, and forbearance in the treatment of others. Compassion, meaning "the deep feeling of sharing the suffering of another, together with the inclination to give aid or support or to show mercy,"[41] motivates powerfully prosocial behavior, including generosity, forgiveness, and self-sacrifice.

The relationship of service members to their families is another aspect of transcendence motivated by love. The need to communicate with family and to know that loved ones are safe is well recognized in the military. Spirituality adds a powerful dimension to this connection, transcending space and time as family members pray for and with one another, and in most religious traditions hope for reunion that transcends death. The way that spiritual belief and practice cognitively reframe the rigors of military life often relies on this loving transcendence of self.

Transcendence is closely related to developing meaning and purpose, since these usually arise through connection to something greater than oneself. Fry suggests that "...as group members model the values of altruistic love to one another, they jointly develop a common vision, which generates hope/faith and a willingness to 'do what it takes' in pursuit of a vision of transcendent service."[42,43]

Exceptional Spiritual Experiences

"*Exceptional Human Experiences* (EHEs) ... touch on areas outside the common sense reality of our everyday world, e.g., a sense of enlightenment or certainty, a feeling of unity."[44,45] This is a psychospiritual term including both spiritual experiences (e.g., "mystical experiences") and psychological experiences (e.g., Maslow's "peak experience" category).

Spiritual experiences can be either interpretive or direct. Interpretive spiritual experience is spiritual "not because of any unusual features of the experience itself, but because it is viewed in the light of a prior [spiritual] interpretive framework."[46] Spirituality allows the individual to find spiritual meaning in all sorts of situations, enhancing positive experiences

and mitigating negative ones through cognitive reframing of events as implicitly spiritual experiences.

In addition to interpretive spiritual experiences, a number of "directly" spiritual experiences are now well established in the psychiatric literature as normal, beneficial, and common. These are "bereavement visits" (perceived visits by the deceased)[47–54] and "near-death experiences."[50,55,56] These experiences are associated with the death of someone emotionally close or one's own close brush with death. These situations are especially common in combat, so these experiences may be expected to be especially prevalent in the military during conflict. These experiences are salutogenic, changing potentially traumatic events into occasions of growth and consolation.

Before the 1970s, these experiences were consistently viewed as pathological hallucinations, but contemporary psychiatric textbooks describe them as normal and conducive to psychological health. Both experiences reduce fear of death and encourage prosocial growth.[56,57] Unfortunately, despite progress in the published psychiatric literature, both clergy and health care providers still often misinterpret reports of such experiences as psychiatric symptoms.

Though positive, these experiences can produce anxiety if experiencers cannot speak about them openly and receive social support.[53] In the military, where perceived stigma reduces utilization of mental health services, it is especially important that care and support personnel understand these experiences and help to create an environment that facilitates their positive effects and avoids the negative effects of stigma.

Outcomes/Benefits of Spiritual Fitness

Operationally Relevant Outcomes

Spiritual fitness is key to ensuring optimal force readiness and protection and enhancing resilience and recovery following combat-related trauma. The early identification of spiritual risk factors in individuals can minimize future dysfunction and negative impact on the unit. Table II, described in more detail below, includes four categories of operationally relevant outcomes: (1) resilience and recovery from deployment- and combat-related trauma, (2) optimized prevention and/or resolution of moral injury, (3) cohesive unit climate supportive of peak performance, and (4) mature and engaged spirituality that fosters finding meaning/purpose and effective coping.

Benefits of Spiritual Fitness Components

Most of the health benefits of spirituality are not limited to specific components, but flow from the combined effect of multiple components across domains. The following benefits are documented in Koenig et al.'s 2001 Handbook of Religion and Health (which incorporates spiritual and religious factors and analyzed 1,200 studies): hope and optimism, less depression, fewer suicides, less anxiety, less alcohol and drug abuse, greater marital stability, less risky behavior, and lower mortality from various causes.[4] Table II summarizes the evidence for these general benefits of spirituality. Table III includes the components of psychospiritual fitness, a summary of the evidence supporting the benefits of each component, and references for benefits for which empirical evidence is relevant.

Metrics

Most measures for particular components of spirituality have not been validated within the military. The association of many of these scales with health has involved either seriously ill patients or the elderly. Furthermore, they tend to be designed for research purposes, not practical application in time-pressured settings. For the monitoring of fitness-relevant spirituality, therefore, the brief general assessments noted below are much more useful for monitoring purposes in the military.

The evidence accumulated through research measures, however, does provide a solid basis for the development of programs and policies intended to enhance spirituality and fitness. The research metrics then can be used in evaluation research to assess the effectiveness of evidence-based programs and policies. They may also be useful in working with service members identified as having mission-relevant spiritual problems.

Metrics for Operationally Relevant Outcomes

Practical and empirically validated metrics are available to commanders for measuring and monitoring service member's levels of spiritual readiness and resilience predeployment and while in theater and assessing risk factors for potential moral trauma and spiritual injury immediately postdeployment. For each of the four categories of operationally relevant outcomes listed above, Table IV describes several related outcome variables and possible validated metrics for assessing each of these variables. For each category, one outcome variable and one metric are highlighted, referenced, and described in more detail. These highlighted metrics were selected based on several criteria: (1) validity (ability to actually measure the targeted outcome variable),[58] (2) reliability (consistency of scores from one assessment to another),[59] (3) relevance to military operations (including whether the metric has been used and/or tested in military and veteran populations), and (4) practicality (including response burden, number of questions, whether a professional is required for administration, and whether the metric exists in extant databases or can be easily integrated into standard pre- and post-deployment health assessments).

Commanders can assess service members' and their units' overall levels of spiritual well-being and health before, during, and after deployment using the Spiritual Attitudes Inventory (SAI).[60] As a follow-up to the SAI and in service members who screen positive for mental health problems or appear to have low spiritual fitness, commanders can direct chaplains or mental health professionals to administer one or more of the fourteen scales from the Deployment Risk and Resiliency Inventory (DRRI).[61] Service members who demonstrate risk factors for moral injury or spiritual problems or who screen positive for mental health problems, should be referred immediately to a chaplain or mental health professional for appropriate follow-up, including chaplain-sponsored programs, skills training, and counseling.

Commanders can monitor their unit's resilience and capacity for recovery from spiritual injury throughout the deployment

TABLE II. Supporting Evidence for General Benefits of Spirituality

Benefit	Supporting Evidence[4]
Hope and Optimism	—"80% or more the studies reported a positive association between religiousness and greater hope or optimism…" —No published studies have shown the opposite. (p. 215)
Less Depression	—Most studies investigating religion–depression association have found religion associated with less depression. —Of eight clinical trials located, five showed that religious interventions increased the speed of recovery from depression. (p. 216)
Fewer Suicides	—"In studies that correlated suicide with some measure of religious belief or activity (i.e. religiousness) the vast majority found an inverse relationship between religion and suicide." (p. 217)
Less Anxiety	—"The majority of studies found less anxiety and fear among the religiously involved including 80% of the five prospective cohort studies and 86% of the clinical trials." (p. 217)
Less Alcohol and Drug Abuse	—76 of 86 studies (88%) "reported significantly lower alcohol use or abuse among more religious subjects" and none reported the opposite. —48 of 52 studies "found significantly less drug abuse among the more religious…." (p. 218) —Significantly for the military most studies of the alcohol-drug-abuse association with religiousness have been conducted among adolescents and college students.
Greater Marital Stability	—"Divorce and separation are significant predictors of poor mental health and suicide (Rossow 1993)…." (p. 219) —Clearly divorce and separation are of major importance to the military. —"More than 90% of studies show greater marital happiness, lower rates of divorce and separation, and greater family stability among the more religious." (p. 220).
Less Risky Behavior	—Considering a variety of risky from smoking to sexual promiscuity to the wearing of seat belts behaviors, the Handbook reports a general association between religiousness and less risk taking. —It should be noted that avoidance of some risks is more strongly associated with some spiritual traditions than others (e.g., Mormons are much less likely to smoke or drink alcohol because of denomination teaching). (pp. 358–381)
Longevity	—Considering a variety of causes, "When the religious variable was operationalized as religiousness 75% (n = 39) of the studies found that those who were more religious survived longer…." (p. 386)

cycle using the 2-[62] or 10-item version of the Connor Davidson resilience Scale (CD-RISC),[63] which take seconds to complete.

While the metrics mentioned above measure spiritual well-being/health, resilience, and risk factors, a comprehensive and valid measure of spiritual fitness is lacking. It is hoped that based upon the definitions established for this and other total force fitness domains that such a metric will be developed for surveillance and measurement of spiritual fitness.

Metrics for Individual Components of Spiritual Fitness

In addition to listing the benefits of developing the spiritual fitness components described above, Table III describes and provides references for several options for validated metrics to assess each of these components.

How Spiritual Fitness Is Being Addressed With Current Programs

Chaplains

The three service branch's chaplaincies provide help to ensure the right to free exercise of religion, conduct worship services and religious rites, and provide counseling and spiritual guidance to service members, wounded warriors, and/or their families.[64] The Army's chaplaincy employs over 2,700 chaplains who represent over 130 different religious organizations; over 700 of these chaplains and chaplain assistants are mobilized or deployed throughout the world.[65] The U.S. Navy Chaplain Corps has 10 "spiritual fitness divisions"[64] and serves the Navy, Marine Corps, and Coast Guard both at sea and on land at foreign and domestic bases. Air Force chaplains are both commissioned military officers and ordained clergy from diverse faith backgrounds, and they serve as advisors to commanders regarding religion, religious accommodation, ethics, and morale.[66]

Identifying and Evaluating Resilience-Building Programs and Practices

Operations Iraqi Freedom and Enduring Freedom are returning thousands of warfighters with physical (brain and body), psychological (mind), and spiritual and moral injuries, many with long-term symptomatic and functional consequences.[67,68] The current standard of care for post-deployment stress disorders, PTSD, and related conditions is not maximally effective, nor does it fully address the spiritual foundations and overlap of precursors and comorbidities characteristic of these stress disorders.[69] Service members most at risk for chronic PTSD are among the least likely to seek care;[68,70] they report mistrust of mental health professionals, concerns about being stigmatized, and doubts about the effectiveness of mental health treatments.[71] Thus, there is a need for resilience-building interventions and training programs that are delivered outside the mental health setting, include a spiritual component, address the whole-person experience of combat-related stress, and that can help pre-empt a disabling downward spiral of acute stress reactions in returning veterans. Just as all equipment that is deployed in combat undergoes a process of restoring to baseline function, so too should the minds and spirits of service members who engage in combat.

In response to these and other needs, the DoD has recently implemented numerous programs, interventions, and policies oriented toward building resilience and preventing and treating combat-related psychopathology. The DCoE is sponsoring several studies of leading resilience-building programs to identify

TABLE III. Spiritual Fitness Components, Related Outcome Variables and Benefits, and Recommended Metrics for Assessment

Component of Spiritual Fitness	Benefits of Component, Including Referenced Evidence Where Appropriate	Options for Metrics
Spiritual Beliefs	—Less death anxiety and death depression[93] —Greater stability over time and under pressure —Confidence when encountering conflicting beliefs, including those of the enemy	Glock and Stark's Orthodoxy Index: —4 items, oriented toward Christianity Systems of Belief Inventory-15 —15-item spiritual beliefs inventory consisting of 2 factors: a 10-item factor regarding beliefs, feelings and experiences, and a 5-item factor assessing social support from one's religious community.[94] Index of Spiritual Orientation —Intended to capture "non-traditional religious group orientations." —Includes belief, salience of religion, purpose in life and mysticism subscales.[95] Spiritual Involvement and Beliefs Scale —26 items including behaviors as well as beliefs. —Although it includes elements that are not strictly spiritual (e.g., willingness to forgive), it is appropriate as a psychospiritual measure.[96]
Personal Spiritual Values	—Positive relationship of spiritual values to prosocial behavior.[97] —Strong though indirect evidence of a values-fitness association. —Consistent and predictable behavior.	Spiritual Connection Questionnaire (SCQ-14) —14-item questionnaire measuring beliefs and experiences of spiritual connection. —Designed to be consistent with both religious and spiritual-but-not-religious spirituality. —Higher scores found to be negatively correlated with "self-enhancement values" and positively correlated with "self-transcendent values."[97]
Personal Practices	—General health benefits[4,98] —Greater ability to manage symptoms of PTSD[99] —Improved functioning and performance —Enhanced resilience and recovery following combat[99] —Benefit to blood pressure, immune function, depression, and mortality.[100] —"Strong, consistent, prospective, and often graded reduction (approx. 25% after adjustment for confounders) in risk of mortality in church/service attenders."[101] —Better mental health among previously healthy individuals subjected to serious illness or injury.[102] —Ability to change pain perception.[103] —Potential buffer for distress derived from experiences of ego loss.[104,105]	Duke Religion Index (DUREL) —Contains 5 questions about frequency of organized and private religious practices, experience of connection to the Divine (could be used for transcendence, too) and the extent to which religious beliefs carry over into other aspects of life.[106]
Purpose and Meaning	—Greater acceptance of difficult situations and opportunities for post-traumatic growth leading to spiritual resilience.[3] —Construing positive meaning from war experiences involving combat exposure or high perceived threat, associated with better psychological adjustment.[107,108] —Remorse or self-blaming for combat-related experiences and actions can lead to guilt and shame, and shame linked to decreased empathy, increased focus on internal distress, greater psychopathology, remorse, self-condemning thoughts, and lower well-being.[3] —Greater coping ability.[109] —Includes ability to find religious significance.[89,110]	Sense of Coherence Questionnaire (SOC) —Measures the important salutogenetic construct sense of coherence, which consists of the three subdimensions manageability, comprehensibility, and meaningfulness.[111] —High consistency (Cronbach α for SOC-13 ranges from 0.74 to 0.91) and considerable stability (e.g., 0.54 over a 2-year period).[112] —High level of content, face, and construct validity.[112]

(*Continued*)

TABLE III. Continued

Component of Spiritual Fitness	Benefits of Component, Including Referenced Evidence Where Appropriate	Options for Metrics
Self-awareness: Reflection and Introspection	—Ability to reframe positively the stressors of deployment and recover more quickly from mental and psychological stress.[74] —Allows leaders to adapt to the external environment, potential adversaries, allies and local populations; to "shift gears" quickly, transitioning quickly from fighting in one moment to relating peacefully with the local community in the next; to access information from a wider variety of channels; and to display greater accuracy and more objectivity in gathering information.[74] —Improved attention and self-regulation.[23] —Increased efficiency of the executive attentional network leading to better task performance.[113] —Enhanced attentional stability, reduced mean reaction time, improved target detection times, and increased efficiency by reducing task effort.[114] —Protection against functional impairments in working memory capacity, which is used in managing cognitive demands and emotion regulation.[24] —Increased control over distribution of limited brain resources, which is significant in the dynamic, high-stress, and resource-scarce combat environment.[115] —Reduced risk of physical, psychological, and spiritual injury.	Freiburg Mindfulness Inventory (FMI) —Short, 14-item version measures mindfulness as a one-dimensional construct that is associated with regular meditative practice.[116] —Internal consistency high (Cronbach $\alpha = 0.86$).[25] —Can be used in subjects without previous meditation experience. —FMI correlates well with relevant constructs (self-awareness, dissociation, global severity index, meditation experience in years).[116]
Transcendence	—Charitable or selfless actions and behaviors. —Well-being. —Feeling of connection/belonging. —Absence of loneliness/isolation. —Leaders who promote a "vision of transcendent service"[41,42,117] in their units can transform something mundane "to something vibrant, where individual and collective spirituality are valued and reinforced, and spiritual development becomes a cultural expectation of the group for mission accomplishment for the greater good."[118]	Daily Spiritual Experience Scale (DSES)[119] —A 16-item unidimensional instrument designed to measure frequency of positive spiritual experiences. —Assesses the perception of the connection with the transcendent as well as moments of interactions with the transcendent in daily life. —Items focus on experience rather than beliefs or behaviors. —Can be used to measure "vertical" transcendence. —Cronbach's $\alpha = 0.95$; test—retest reliability $\alpha = 0.92$.[119,120] Interpersonal Support Evaluation List (ISEL)[87] —Two domains of the ISEL measure belonging and perceived isolation. —Can measure "horizontal" transcendence.
Exceptional Spiritual Experiences	—Reduced death anxiety.[56,93,121,122] —Association between "bereavement visits" and healthy faster resolution of grief.[46-48,53] —Avoidance of anxiety and potential interpersonal conflict produced by conventional stigmatization of such experiences as pathological. —Increased life purpose and satisfaction, a health-promoting attitude. —Decreased frequency of medical symptoms.[123]	Index of Core Spiritual Experiences (INSPIRIT) —7-item scale "measuring the occurrence of experience that convinces a person God exists and evokes feelings of closeness with God, including the perception that God lives within."[124] —Not specific to exceptional experiences, but clearly would include them.[125] Exceptional Experiences Questionnaire (EEQ): —Measures the frequency and evaluation of exceptional experiences as a multidimensional construct. —Factors: positive spiritual experiences, experiences of ego loss, psychopathological experiences, visionary dream experiences.[105]

TABLE IV. Operationally Relevant Outcomes and Metrics

Operational Outcome	Related Variables	Recommended Metric for Each Variable
Resilience and Recovery From Deployment- and Combat-Related Trauma	Key variable and metric:	
	Resilience	Connor Davidson resilience Scale (CD-RISC) —Distinguishes between those with greater and lesser resilience. —Has been used in military populations. —The two-item version of the Connor-Davidson Resilience Scale (CD-RISC2) takes less than 30 seconds to complete and asks about one's abilities to adapt to change and recover from illness or hardship, and distinguishes between those with greater and lesser resilience.[61] —CD-RISC2 has demonstrated validity, good test-retest reliability, and significant correlation with the full, 25-item version of the CD-RISC.[62]
	Other related variables and metrics:	
	Post-deployment reintegration	Post-Deployment Readjustment Inventory (PDRI)[60]
	Symptoms of depression	Patient Health Questionnaire (PHQ-2) —Included in the Post-Deployment Health Assessment and Re-Assessment (PDHA/ PDHRA) is the Pateint Health Questionnaire (PHQ-2), a 2-item depression instrument with high construct and criterion validity.[80,81]
	Well-being	Veterans RAND 12-Item Health Survey VR-12 —Derived from the SF-36, the gold standard used by the VA to measure health related quality of life.[82]
Optimized Prevention and/or Resolution of Moral Injury	Key variable and metric:	
	Risk factors for moral injury and spiritual resilience	Deployment Risk and Resiliency Inventory (DRRI)[83] —Created with DoD and Veterans Affairs support to assess key deployment-related risk factors unique to contemporary warfare that can negatively impact service members health and well-being.[84] The DRRI scales assess: —Prewar factors such as prior stressors and early life experiences. —Deployment and war-zone factors such as stereotypical warfare experiences, one's sense of preparedness and safety in the combat zone, and exposure to nuclear-biological-chemical agents and consequences of combat. —Postwar factors such as the extent of social support and stressful life events post-deployment.[85]
	Other related variables and metrics:	
	Knowledge about moral injury and its relationship to spirituality and stress.	Knowledge questionnaire/"test" following training session on this topic.
	Preparation for exposure to, and handling of, traumatic combat experiences.	Existence of pre-deployment facilitated discussions with chaplains, including scenario building, role playing, etc.

(*Continued*)

TABLE IV. Continued

Operational Outcome	Related Variables	Recommended Metric for Each Variable
Cohesive Unit Climate Supportive of Peak Performance	Key variable and metric:	
	Unit cohesion	Platoon Cohesion Index (PCI)[86] —Developed for use by company commanders and platoon leaders to assess cohesion in their platoons. —Consists of 20 items that form 3 horizontal, 2 vertical, and 5 organizational bonding scales. —Tested in 44 platoons of light and mechanized infantry from 2 posts. —Moderate to high intrascale, inter- scale, and scale-criterion correlations as well as predictive validity with platoon performance on field training exercises.
	Other related variables and metrics:	
	Unit climate that respects diversity and differing values.	Unit climate surveys
	Purpose and mission clearly articulated by command.	Focus groups Observational research
	Genuine care and concern exhibited by unit members.	Interpersonal Support Evaluation List (ISEL)[87] —Provides a global measure of perceived social support across four domains (belonging, self-esteem, appraisal, and tangible help).
	Ethical behavior and decision making modeled by leadership.	—Adherence to rules of engagement —Presence of unit training.
Healthy, Mature, and Engaged Spirituality That Fosters Finding Meaning/Purpose and Effective Coping	Key variable and metric:	
	Healthy spirituality	Spiritual Attitudes Inventory (SAI) —Has been tested and used in military populations.[59] —Includes 39 questions and takes approximately 3-5 minutes to complete. —Measures the following areas: (1) Religious spiritual practice as measured by the Duke Religion Index (DUREL),[88] $\alpha = 0.85$. (2) Religious/spiritual belief as measured by the Negative Religious Coping (NRCOPE) scale,[89] $\alpha = 0.73$ to 0.98. (3) Sense of purpose/connection as measured by the Existential Well-Being Scale (EWBS) (a subscale of the Spiritual Well Being Scale (SWBS)[90]), $\alpha = 0.78$–0.81. (4) Sense of hope/control as measured by the internal/external subscale of the Multiple Health Locus of Control Scale (MHLC).[91] $\alpha = 0.60$.
	Other related variables and metrics:	
	Availability of individual and unit spiritual practice opportunities, including perception of freedom of spiritual / religious expression	Focus groups and semi-structured interviews
	Accessibility of chaplain and chaplain-sponsored programs.	Institutional records
	Positive coping	Coping Self-Efficacy Scale (CSES)[92] —Measures perceived self-efficacy for coping with challenges and threats; 3 factors: problem-focused coping, emotion-focused coping thoughts (and ability to get social support)
	Perception of unit support	Perception of Unit Support Scale (DRRI-US)[83]

key principles and outcomes for each program. Examples of these projects include an overview of DoD resilience programs;[72] a systematic review of factors and components of resilience;[73] and a report that includes data about existing DoD programs' consistency with research evidence on resilience, a catalog and taxonomy of existing efforts and initiatives to support resilience and psychological health, a framework and toolkit for evaluating them, and preliminary data on some of the most promising programs/interventions.[74,75]

Comprehensive Soldier Fitness

Comprehensive Soldier Fitness (CSF) is a total force fitness program designed to enhance performance and build resilience in soldiers, families, and Army civilians.[76] CSF uses individual assessments, self development modules, a variety of training styles (e.g., virtual, classroom, online, and institutional), and resilience trainers who provide self-care skills training to soldiers and their families. One of five dimensions of CSF, the spiritual module is based on the Domain of the Human Spirit (DOTHS) model.[77] The components of the DOTHS model are spiritual strength (core values and beliefs concerning purpose and meaning); self-awareness (reflection and introspection); social awareness (respect, empathy, compassion, and communication skills); self-motivation (confident belief, expectancy, hope, and optimism); self-regulation (emotion, cognitive, and behavior control); and sense of agency (ownership). The spiritual fitness component of CSF focuses first on individual spiritual development, and then on spiritual leadership through role modeling and establishing an organizational climate supportive of spiritual development.[77]

DISCUSSION

Combat has always presented fighters with complex and difficult spiritual issues. The asymmetrical nature of combat facing American troops today, along with the growing role of religious ideology in those conflicts, makes formal attention to spirituality by military leadership more urgent than ever. Fortunately, there are many existing programs within which new spiritual elements can be incorporated, utilizing existing personnel. Chaplains are primary in this, but chaplaincy work and spiritual support in general need to be better integrated with these programs and staff. For example, some spiritual practices very useful to service members, such as yoga and meditation, may be most usefully located in areas set aside for physical exercise or recreation, and instructors may not be chaplains.

The development of an integrated team approach to troop support is crucial, similar to developments in civilian health care. As has become obvious in the civilian healthcare setting, this integration can only occur when there is full commitment from the leadership. Commanders need to understand why this is crucial to force readiness and troop fitness, and must be given the training and tools to develop and support integrated teams. Especially in the modern, spiritually diverse armed forces, leadership has a crucial role in establishing and maintaining balance so that minority traditions are not disadvantaged.

Spiritual support planning must be evidence based, just as medical and behavioral supports are. The research literature on spirituality and health is relatively young, but it is extensive and includes data that can support the planning of policies and programs in the armed forces. However, the applicability of those findings to the military population, in combat and postcombat, has not been empirically tested and confirmed. Therefore, new policies and programs must include evaluation research, not only to gauge effectiveness, but also to allow the fine tuning of interventions to the specifics of the military environment.

Programs should begin with the utilization of those instruments currently available that are sufficiently compact to be useful for the monitoring of service members on a regular basis (see Metrics section above) before, during, and after deployment. The usefulness of this monitoring will depend on the availability of chaplains and mental health personnel for referral and training programs to ensure that those personnel are familiar with the instruments in use and can address identified problems appropriately.

In addition to this monitoring, pre-deployment programs should address the likely risk of spiritual distress and moral injury and prepare all new service members rather than waiting for individual crises. Also, leaders need to monitor events in the field that call for proactive interventions. When accidents or errors in combat result in civilian deaths, or when atrocities are reported, it should be assumed that spiritual distress and moral injury are likely results among service members. In these circumstances, programs should be in place for spiritual support.

Increasing diversity in the American population has raised the issue of cultural competence as never before, and spirituality constitutes a major part of that diversity. Military programs must scrupulously avoid discrimination against minorities while providing appropriate services for the large Christian and spiritual-but-not-religious groups in the services. This means that all levels of leadership and support personnel need training.

Chaplains are a valuable resource for such training and for development of programs. This is especially true for those with Clinical Pastoral Education (CPE) training and certification. CPE training is a virtual necessity to the chaplain's ministry in a diverse setting, and it greatly enhances their ability to train and work with other professionals, especially behavioral health professionals. It is essential that chaplains be considered an integral part of the care team, especially since service members have shown a tendency to present their psychological problems to chaplains to avoid the perceived stigma that goes with consulting a mental health professional. The work of chaplains can be optimized by teaming them with psychologists and social science experts in the field of spirituality and health.

Such collaborative relationships require support from leadership, so this should be a high priority for commanders. Training and policy should be implemented to address barriers in leadership, such as silence about spiritual issues, inaccurate views of spirituality and psychospiritual fitness, and inconsistent receptivity to chaplains' pastoral services and advice.

CONCLUSION: BOTTOM LINE FOR THE LINE

The following recommendations are designed to enhance individual and unit spiritual fitness, build resilience, and optimize

force readiness and protection. Each recommendation requires commanders with the training to understand its importance and the skill to support it.

(1) Implement evidence-informed mental and spiritual fitness training programs, including practical skills training in appropriate mind–body self-management techniques, education about moral injury and its relationship to spirituality and stress, and peer counseling opportunities with returning and retired veterans.
(2) Organize pre-deployment discussions, facilitated by chaplains and including scenario building and role playing, to prepare service members and their families for exposure to moral and ethical stressors unique to modern unconventional warfare, to "break the ice" on talking about the possibility of loss of a loved one's life, and to facilitate development of contingency plans in the event of physical, mental, emotional, and/or spiritual injury.
(3) While in theater, implement unit after action reviews following any potentially traumatic experience and at regular intervals throughout the deployment. The spiritual ramifications of combat trauma do not affect just the individual; they impact the entire unit.
(4) While in garrison, monitor resilience, assess risk factors that could negatively impact spiritual fitness, and screen for moral trauma and potential problems resulting from spiritual injury.
(5) Develop a toolbox of resources to recommend when service members screen positive for mental health and spiritual problems or moral injury, including referral to chaplains, chaplain-supported programs, counseling, and/or other resources.

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