

Proselytizing a Disenchanted Religion to Medical Students:  
On why secularized yoga and mindfulness should not be required in medical education

THESIS

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## Abstract

Since the 1990s, medical educators have endeavored to integrate traditional, complementary and alternative medicine (TCAM) into medical school curriculums in the United States. Motivated by National Institute of Health recommendations, approximately half of American programs have implemented coursework in TCAM to supplement the biomedical model of health. Curriculums vary in how this coursework is integrated, from teaching students on how to incorporate TCAM practitioners into care plans to providing student self-care sessions. This education has come under scrutiny due to questions regarding its effectiveness in promoting health, as well as to recognize the historical religions from whence therapies originate. As examples, yogic and mindfulness practices will be examined here to elucidate whether (and if so, how) such practices ought to be integrated into medical education.

Yoga and mindfulness are historically linked to the religious practices of Hinduism and Buddhism. Yoga integrates body posturing with simple meditations in efforts to achieve harmony of body and mind, and of self, with Brahman. Practitioners introduced yoga to Europe and the Americas in the late nineteenth century, with subsequent popularization in the late twentieth century. Drawing primarily from the physical postures in *hatha* yoga, contemporary practices have been used to complement treatment of physical and mental health conditions of both medical practitioners and

patients. Mindfulness derives from the Pali term *sati*, which refers to recollection and acquisition of insight regarding the value of objects or ideas, and constitutes one element of the Buddhist noble eightfold path. Its modern medicalization can be traced to Jon Kabat-Zinn's opening of Stress Reduction Program in the mid-twentieth century, which supported the spread of mindfulness to other hospital systems. Applications of mindfulness have included treatment of psychiatric conditions and burnout prevention among professionals.

Due to these practices' histories, traditional religious groups such as conservative Islam and evangelical Protestants object to their adherents' participation. To understand these objections, the specific case of Orthodox Christianity is considered with regard to its grounds for prohibition in engaging these practices. While secular medicine assumes a state of disenchantment in these practices once uprooted from their respective traditions, this presupposition is not shared by Orthodox Christians, who would claim that their participation in secularized versions constitutes engagement with spiritual dangers. In light of these considerations, medical schools should not mandate participation in yoga or mindfulness, but instead, should focus on the biomedical implications of these practices and how physicians should interact with TCAM practitioners.

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## Chapter 1: Introduction

First-year medical student, Josephine Roberts, has completed her fall semester at her state medical school. After overcoming the initial shocks associated with the rigor of medical school, she welcomes a less stressful module, a mandatory session developed to introduce students to different coping mechanisms they can integrate into their self-care and medical practice. When she arrives to class, she finds yoga mats instead of chairs, ready for students to use following an introductory lecture. She grows concerned about whether she can participate as a member of the Orthodox Christian Church. She approaches the instructor, integrative medicine practitioner, Dr. Virginia Yancey, and asks whether she can opt out on grounds of religious conscience. Dr. Yancey finds her concern confusing, as the practices of the day would only feature postural yoga and mindfulness meditation, and are meant to help rather than harm Josephine. Dr. Yancey informs Josephine that she may opt out, but may also risk academic retribution for failure to attend a mandatory session. Josephine is torn. She does not desire to mar her academic record over something apparently small in her professor's eyes. At the same time, she does not want to participate in something she finds harmful to her well-being, regardless of the intent of her professor or her curriculum's developers.

The above case appears strange to contemporary ears. Why should Josephine have a reason to object against contemplative practices and physical exercises meant to build



her resilience in the face of a stressful medical environment? If these practices are meant for her benefit, little reason for objection should occur under the assumption that this physical and mental well-being could be acquired by anyone engaging in the practices described above. However, one may also question why the school itself focused its attention so heavily on having their students practice yoga and mindfulness that they integrated it as mandatory within their curriculums. Why should a medical school force their students' participation in this program, when these practices are not necessarily standards of care or compulsory for their patients' participation in mental health and wellness programs?

This dual concern – the question of why a student would object to these practices and why a medical school in the United States would advocate yoga and mindfulness meditation so strongly – finds its root in more foundational questions regarding the content of traditional, complementary, and alternative medicine (TCAM) and its role in medical education. TCAM stands as an all-encompassing term to describe those therapies that fall outside the purview of biomedicine based on questions of effectiveness, but nevertheless, may offer the promise of psychological or physical benefit to patients (Barnes, Bloom, & Nahin, 2008; Xue, 2008). These therapies may have grown out of a significant history within a traditional popular practice (“T” in TCAM), may be added to services typically offered by biomedical interventions (“C” in TCAM), and/or may be used in place of biomedical therapies based on patients' preferences (“A” in TCAM). In

2007, four out of ten surveyed Americans reported using some form of TCAM in the prior twelve months, with the most common forms including nonmineral, natural products (17.7%), deep breathing exercises (12.7%), and meditation (9.4%) (Barnes, Bloom, & Nahin, 2008). Notably, both yoga and meditation were considered as on the rise when compared with prior studies. Some of these practices invite criticism from religious communities that question both the role of integrating practices with religious origins into the contemporary health care system as well as the spiritual repercussions therein. However, the use of these therapies should be recognized and understood by biomedical practitioners to the extent that they are able in order to serve and advise their patients appropriately. In recognition of these therapies' prevalence and controversial nature in the United States, how should medical schools educate future doctors regarding these practices?

To consider the place of TCAM in contemporary medical education, this thesis explores the religious heritage of yoga and mindfulness meditation, its historical development in the United States within general society and in health care specifically, and how this role has been understood within secular society and within objecting communities. In considering the spiritual heritage of these two practices in the Indian subcontinent, a baseline will be established for understanding how these practices were initially practiced and understood within their religious contexts. Their subsequent introduction to American culture will be approached by discussing the influence made on

transcendentalist authors in the United States, as well as the impact accrued by Hindu proselytizers in the late nineteenth and early twentieth centuries. Its subsequent transformation within the culture of the United States will be described, including the common forms of yoga that developed throughout the twentieth century and how yoga became integrated into the societal milieu. From thence, this paper will turn to the role of yoga and mindfulness in treating patients in contemporary medical practice as a complementary therapy, as well as in providing medical students with opportunities for self-care in their curriculums.

Having considered both the general integration of yoga into American society and health care, commentary will be made regarding its status within secular society. More specifically, the practices of yoga and mindfulness will be understood as tools within the secular system for promoting various ends, whether physical, mental, spiritual or otherwise, as understood by the goals of the person marketing or consuming the practices. These observations may provide insight both into the vision of Dr. Yancey in administering the course to students, as well as the goals of the administration in mandating students' participation.

From thence, this paper will turn its attention toward a tradition in which many subscribers hold objections to participating in yoga and mindfulness, regardless of level of secularization: Orthodox Christianity. Within this tradition, an examination will be made of the documents written and promulgated by leadership and laity publicly in order

to establish basic reasons for the Orthodox Church's rejection of yoga and mindfulness theologically. Additionally, intersections of yoga and mindfulness with other physical and mental activities will be discussed to elucidate how the terms "yoga" and "mindfulness" transform persons' experiences of the practices. Study of this material will provide insight into why Josephine may have objected to participating in the mandatory yoga and mindfulness session above, and frame further ethical analysis of the case based on a secular ethic of permission.

Lastly, the case will be reconsidered to understand the competing visions of health at play among Josephine, Dr. Yancey, and her school administration to highlight how yoga and mindfulness meditation may be viewed as disenchanting, enchanting or (potentially) reenchanting. Furthermore, the content of medical education will be considered regarding its goals in training providers to meet the challenges of pluralism in secular society, as well as what role conscience may play in Josephine's future encounters with yoga and mindfulness meditation as therapeutic modalities. By this discussion, this paper concludes with an effort to chart a way forward for medical education that at once seeks to address the presence of TCAM practitioners in a pluralistic world, to ensure the mental health and well-being of students, and to recruit a diverse student population, among whom may be those who object to subsets of TCAM practices.

## Chapter 2: Religious History

To understand the roots of the dilemma discussed in the introductory case, the religious and philosophical backgrounds of both practices in question – yoga and mindfulness meditation – should be examined. In calling attention to these traditions, no intent is made to present an exhaustive discussion of the practices and the scholarship surrounding them. Instead, this chapter seeks to provide a more holistic understanding of definitions of what is and has been meant by “yoga” and “mindfulness,” and by so doing, acknowledge the intersubjective complexity associated with discussing these practices. Additionally, for the purposes of this paper, the term “Eastern” will apply broadly to describe those religions, philosophies, and practices that have their historic origins in the Asian continent, drawing mostly from South and East Asia.

Yoga constitutes an assembly of physical, mental, and spiritual practices, originally grounded in a variety of religious spiritual traditions. Although it is most commonly associated with Hinduism, yoga has been linked to a variety of other religious traditions having their origins in South Asia, including Jainism and Buddhism (Strauss, 2005). However, the earliest records of practices similar to yoga trace to times prior to the writing of the main body of Hindu texts, the Vedas, in the Indian subcontinent. As a term, the word “yoga” means to be “yoked” or “joined together,” first surfacing within a

hymn of the *Rig Veda* (one of the four Vedic texts): “[the] seers of the vast illumined seer *yogically control* their minds and their intelligence” (Burley, 2000, emphasis added).

What is meant by this “harnessing” or “controlling” may vary within the traditions in which yoga is practiced. Broadly speaking, the goal of yoga may be considered as the integration of body postures with simple meditations to achieve internal harmony and release from earthly ties. When contextualized within Hinduism, yoga is seen as among the means of achieving union with Brahman, that is, the Ultimate Reality or Principle. This pursuit of unification with Brahman also sparks the common meditative mantra of *om*, often associated with yogic practices (Larson & Jacobsen, 2005). Classical yoga presents itself as a system of eight stages through which one proceeds in order to reach this unification, beginning with practicing morality in one’s social life (Strauss, 2005). Concurrently, yoga is meant to offer awakening to understanding of being in general. As Gavin Flood (1999) describes the practice, the disciplines of yoga “are thought to lead to spiritual experience and profound understanding or insight into the nature of existence” (p. 94) culminating in the transcendence of the empirical self toward one’s true self. Regardless of specific application, however, yoga has been commonly understood as an exercise that involves the movement of one’s being toward a higher reality.

The kinds of disciplines yoga entails also vary from school to school. For example, *ashtanga* yoga draws its forms from the *Yoga Sutras of Patanjali*, which are

texts that comment on the eight kinds of yoga meant to engage social relations, mental practices, and body postures (Maehle, 2006). Another form, *hatha*, translated as “force,” emphasizes the physical postures, *asanas*, and their performance in specific sequences, such as in the common twelve-step salute to the sun (“*Hatha Yoga*,” 2007). In addition to these physical postures, *hatha* incorporates dietary guidelines and breathing exercises. Together, these exercises are meant to awaken the dormant *shakti* (energy) and allow it to ascend through various *chakras* (wheels) to achieve enlightenment (“*Hatha Yoga*,” 2007).

As a means of meditation, mindfulness may be found within Eastern religious traditions as a means of monitoring one’s mental practices. In origin, it is closely linked to Buddhism, with the term in Pali, *sati*, constituting one element (“right mindfulness”) of the Buddhist noble eightfold path – the path meant to liberate oneself from *samsara*, i.e., the cycle of rebirth in which one is caught until enlightenment (Kuan, 2007). Mindfulness can also go awry, with the prefix *miccha-* added in early Buddhist literature to *sati* to describe “wrong mindfulness” and general deviation from the noble eightfold path (Kuan, 2007). The Sanskrit term for mindfulness, *smṛti*, has also been translated as “recollective memory;” however, the practice of mindfulness tends to orient oneself to the present moment rather than toward reflections on the past or future (Brown, Ryan, & Creswell, 2007; Kuan, 2007).

The content of these practices typically consists of recognizing what one is aware of through one's sense perceptions, such as the physical sensations that accompany breathing, and considering them through a non-judgmental framework (Brown et al, 2007). Within meditative practice one becomes aware of the various stimuli that surround oneself, both of the mind and of the body, and then turns oneself to those stimuli meriting attention (Brown et al, 2007). Different schools within Buddhism emphasize different aspects of the practice of mindfulness, such as clarity of awareness in schools of Zen Buddhism, likening the state to "a polished mirror, wherein the mind simply reflects what passes before it, unbiased by conceptual thought about what is taking place" (Brown et al, 2007, p. 213). Nonetheless, the general goal of the practices remains centered in the noble eightfold path, providing proper orientation to Buddhist practitioners as to the purposes for their meditation.

This brief discussion of the religious heritage of yoga and mindfulness meditation serves to orient the initial case regarding the historical background of these practices. Although much more could be written regarding the particularities of the practices within these traditions, this overview provides a foundation for understanding some of the original purposes of these practices. These initial understandings also assist in framing how the goals of yoga and mindfulness meditation have been modified in the United States to consumer interests, the process by which this has occurred described in the next



chapter. Of most importance for this paper, however, is how communities and institutions understand these origins as shaping (or not shaping) current practices.

### Chapter 3: History in the United States

The history of these Eastern practices in the United States is relatively recent, with most accounts tracing to the mid-nineteenth century at earliest. The history of yoga within the United States may be traced to two main points in history: the earliest citation of an American citizen calling themselves a practitioner of yoga and the missions efforts of Swami Vivekananda (De Michelis, 2005). Elizabeth De Michelis (2005) finds in the writings of American author Henry David Thoreau one of the first written records of an American self-identifying as a yoga practitioner. In a letter to friend, Thoreau writes how, “to some extent, and at rare intervals, even I am a yogi” (De Michelis, 2005, p. 3). The practice of yoga ran parallel to rising general interests in the Vedas among transcendentalist authors, like Ralph Waldo Emerson (Mullis, 2015). However, its spread may be traced to the efforts of Swami Vivekananda, who began to run counter-mission efforts in reaction to Western Christian missions abroad (De Michelis, 2005). His influence began by his speaking to the Parliament of Religions held in Chicago, Illinois about Hinduism in 1893, which prompted further mission in the American Northeast in 1894. He focused his mission in this region based on the Western occultic practices of the area, describing the region as fertile ground for Hinduism based on its natural embrace of such philosophies as theosophy and mesmerism (De Michelis, 2005). Later in the decade, through promoting such publications as the *Raja Yoga* beginning in 1896, ultimately

influencing the likes of philosopher William James (Mullis, 2015). By his labors, increased interest in Hindu religious expressions and texts began in the United States and in Western Europe, and with this interest, spread both the cultural awareness and practice of yoga (De Michelis, 2005; Strauss, 2005).

The kind of yoga spread by Vivekananda began to modify once it spread in the United States (De Michelis, 2005). Modern yoga of Vivekananda's form primarily drew from the *ashtanga* form mentioned previously. However, these yogic practices transformed into what became known as modern psychosomatic yoga, which became more privatized in nature and listed few normative doctrines. Another form of yoga emerged from modern psychosomatic yoga, modern denominational yoga, with greater sectarian emphases and requirements to build on that school of yoga's beliefs. This form itself separated based on different emphases, with modern meditational yoga focusing on the mental practices of yoga and modern postural yoga emphasizing the physical positions taken by the practitioner. This latter form became more prominent over time, drawing from *hatha* practices of the *asanas* mentioned previously as guided by author and yogi Bellur Krishnamachar Sundararaja Iyengar. His publication, *Light on Yoga*, proved to be a bestseller that spread this specific form of yoga to the masses within the United States (De Michelis, 2005).

From the 1950s onward, modern postural yoga became the most popular form of yoga practiced in the United States, with De Michelis (2005) recognizing its transition

from a popular phenomenon to an acculturated practice. She cites the period from the 1950s to the 1970s as the “popularization” phase of modern postural yoga, in which significant media attention was devoted to the practices and travel was promoted to locations hosting schools for counter-cultural movements of the day. The schools of yoga began to mature in the 1980s, with increased standardization of practices and integration of the practices into medical therapy and stress management. From then to now, De Michelis (2005) finds that yogic schools have refocused their attention on the societal and commercial considerations that drive participants’ involvement in yoga. However, that is not to say that schools of more sectarian nature do not persist, but rather, that they do not represent the acculturation process described here.

While interest in mindfulness practices may have begun alongside general interest in Eastern philosophies by transcendentalists, interest specific to mindfulness meditative practices began much later than yoga in the mid-to-late twentieth century. The influence of mindfulness came to be influenced significantly by Jon Kabat-Zinn, who founded the Mindfulness-Based Stress Reduction Program at the University of Massachusetts Medical School in 1979 (“History of MBSR,” 2017). He initially developed the program to help patients cope with chronic illnesses, but interest in mindfulness techniques increased rapidly in subsequent years, leading to its application to healthy participants and to mental health conditions (Parswani, Sharma, & Iyengar, 2013). Interest in mindfulness meditation and its integration into psychotherapy, such as through

mindfulness-based cognitive therapy, has only expanded, with exponential increases notable since the early 2000s based on ISI web of knowledge database search results for term “mindfulness” (Williams & Kabat-Zin, 2011).

Because of prior American interests in Eastern spiritual disciplines, mindfulness meditation and yoga may now be seen throughout the contemporary United States. Its original forms have been adapted fit into American society more naturally, mostly removed from their religious contexts. Given how these practices have become integrated into society in the United States, how should health care professionals consider these practices when their patients or TCAM practitioners approach them for advice or referrals, respectively? Hereafter, discussion will focus on yoga and mindfulness meditation as understood within the health care context, but the above history remains influential in framing how both of the practices have come to be contextualized within the general American culture.

## Chapter 4: Contemporary Medical Practice and Education

As these practices have increased in the Western cultural landscape, medical practice and education have turned their attention to regard what role, if any, yoga and mindfulness meditation should play in contemporary biomedicine. These considerations have fallen under two main foci, namely, the study of patient outcomes of those who use these therapies to address specific mental or physical health concerns, and the utility of the practices in addressing medical student and professional well-being. Here, an overview of these considerations will be weighed alongside criticism from within the medical profession regarding the latter use of such practices in building resilience, rather than addressing structural abuses perceived as prevalent within medical education.

With regard to patient care, yoga has carried mixed results depending on the condition for which it is used. Per the National Center for Complementary and Integrative Health's (NCCIH, 2013) evaluations, yoga has held demonstrable benefits for patients suffering from chronic low back pain, major depressive disorder, and anxiety. Additionally, yoga stands out as holding greater impact than traditional exercise in outcomes for promoting kidney function and diminishing psychotic symptoms (Ross & Thomas, 2010). However, yoga has received mixed results for its use in improving arthritis, and has demonstrated no benefit in improving asthma symptoms (NCCIH, 2013). News critics have also warned against potential harms of yoga if practiced without

sufficient guidance or physical care. Special concerns arise when attempting challenging neck poses due to risk of cerebral lesions with neck hyperflexion (Hanus, Homer, & Harter, 1977; Russell, 1972). Additionally, the NCCIH (2013) itself provides warnings on its website regarding which medical conditions may cause need for limitation or modification of yoga postures, e.g., hypertension, glaucoma, sciatica, pregnancy, etc. Due to these mixed results when studying the practice of yoga, the recommendations for patients' participation in these postures as adjunctive therapy may remain questionable to medical professionals generally, and contingent on the disease state in question.

Mostly positive results have appeared in attempts to apply mindfulness meditative practices to patient care, with the interventions holding special relevance to the fields of psychiatry and neurology. For example, mindfulness practices have been demonstrated to assist patients in recovery from substance use disorders (Black, 2014). Certain psychotherapeutic modalities have been developed in part through integrating mindfulness practices into the techniques, as is the case in dialectical behavior therapy in treatment of borderline personality disorder (Baer, 2015). Additionally, mindfulness-based interventions have been considered useful in preventing the transition from mild cognitive impairment to Alzheimer's disease based on its ability to reduce stress (Larouche, Hudon, & Goulet, 2015). This assistance in modifying cognitive and psychiatric status has been demonstrated through studies of the brain that indicate increase in regulation of the amygdala – an area of the brain typically associated with

emotional reactions – by the prefrontal cortex with practice of mindfulness-based interventions (Lau & Grabovac, 2009). Additionally, activation of the anterior left side of the brain and preservation of this asymmetric activation, an activation pattern that is linked with more positive emotional responses, proved demonstrable among participants in mindfulness-based cognitive therapy for treatment of suicidal ideation (Lau & Grabovac, 2009). By studying both neuroimaging and clinical outcomes, mindfulness-based approaches to issues involving mental health appear to yield positive results overall.

In addition to studies on the psychiatric health and cognitive function of mindfulness participants, there have been studies on the physical effects of mindfulness on dermatologic and chronic pain. When used as an adjunct therapy for treating patients undergoing phototherapy or photochemotherapy for severe psoriasis, mindfulness interventions increase the rates of resolution of psoriatic lesions significantly when compared to reception of the therapies sans mindfulness (Kabat-Zinn et al, 1998). Regarding patients suffering from chronic pain, a ten-week stress reduction program proved helpful in decreasing disability secondary to pain, as well as “present moment” pain, with participants still reporting the former improvement over one year after the training (Kabat-Zinn, Lipworth, & Burney, 1985). Immune function has also improved in response to employing mindfulness practices, with improved antibody responses to influenza vaccines notable among employees who had received an eight-week training



session on stress reduction (Davidson et al, 2003). Based on these findings, mindfulness-based techniques appear effective in serving not only an individual's mental health, but also their physical recovery and maintenance.

In medical school education, these practices take on dual roles, serving as the basis for education regarding kinds of practices with which patients engage as well as a coping mechanism by which students may face the challenges of their education and professional careers. In medical schools, a call by the National Institute of Health in 1995 charged medical schools to integrate the study of traditional, complementary, and alternative medicine (TCAM) (Berman, 2001). Later that decade, 60% of American schools surveyed had integrated TCAM education into their formal curriculums, with common topics including chiropractic, acupuncture, homeopathy, herbal therapies, and mind-body techniques (Wetzel, Eisenburg, & Kaptchuk, 1998). Of those schools reporting integration, 31% of the programs required students' participation in the sessions, and 77% of reported programs reported that these sessions involved a practitioner demonstration. What is uncertain from these study results is whether crossover existed among those programs requiring student participation and those which integrated practitioner-led sessions, which may have required student participation in the aforementioned practices. In later reports, a decreased percentage of schools required courses or clerkships (4.7%), although the specific content of these programs was better appreciated regarding the subjects at hand, with yoga integrated into 7.1% of programs

and mindfulness meditation into 16.5% of them (Cowen & Cyr, 2015). The goal of these programs collectively remains the same in educating students regarding potential benefits of these therapies to their patients, as well as to the medical students themselves.

The desire for programs to integrate TCAM into their curriculums stands out due to current trends regarding treating burnout, i.e., a tendency toward emotional exhaustion, depersonalization, and decreased sense of success, within the medical profession (Lyndon, 2016). In recognition of the high rates of suicide among both physicians and medical students, medical schools have taken up the charge to prevent burnout through integrating self-care programs into their formal curriculums (Schernhammer, 2005). By including yoga and mindfulness among other coping mechanisms, the schools attempt to create in students a “coping reservoir” upon which they may draw to face the stresses and challenges of medical education (Dunn, Iglewicz, & Moutier, 2008). Due to this demand, cell phone applications such as Headspace (2016) have now entered the general market to promote mindfulness practices, with interventional cardiologist and popular podcaster Dr. Paddy Barrett advertising their services to prevent burnout. By these formal and accessible self-care mechanisms, medical schools hope to build up resilience within their student body to protect them from burnout and to decrease their risk of suicide.

Critics of resilience training have raised questions regarding whether these interventions solve the root problems involved in the increased burnout rates among physicians. Pamela Wible has considered the stresses associated with medical education

and residency programs to constitute a kind of abuse against those who enroll (TEDMED, 2016). She finds that these abuses are better prevented by addressing structural issues, such as duty hours for residents, rather than simply promoting emotional, mental and physical stability among students. Regardless of level at which burnout is addressed, medical schools and the health care system at large have recognized that burnout should be addressed by some means, with TCAM practices holding potential benefits toward regaining and preserving personal well-being.

In recognition of the above goals, do yoga and mindfulness serve the purposes of assisting medical students in overcoming educational stressors? Studies that have engaged medical students in using both of these practices, together and separately, have yielded positive results on a number of different points. For example, basal anxiety levels prior to major examinations were reduced among medical students who participated in yoga in comparison with their non-practicing peers (Saoji, 2016). Beyond measures of psychiatric symptoms, medical students in another study of yoga demonstrated decreased heart rate and blood pressure in comparison with their peers (Saoji, 2016). Mindfulness practices have yielded similar results, with mindfulness meditation serving to reduce serum cortisol levels, decrease depressive and anxiety symptoms, and improve spiritual well-being among medical student participants (Saoji, 2016). Based on Apar Saoji's (2016) review of these studies, both yoga and mindfulness interventions prove to have utility in overcoming symptoms associated with burnout.

From reviewing the studies above, the mental and physical influence of mindfulness meditation and yoga become apparent to biomedical practitioners, raising questions regarding how they ought to be integrated into contemporary medicine. Although some postures in yoga can hold risks to patients, tempered forms with guidance could prove useful as an adjunctive therapy to patients with chronic pain. The positive impact of mindfulness meditation reaches across a significant number of disease states, physical and mental, which may explain its continued popularization in the United States. Furthermore, both practices may assist in the preservation of physical and mental well-being of medical students, residents, and attending physicians, effectively combatting the symptoms of burnout. Based on these benefits, the public medical school in the case example appears justified in presenting information to students regarding the benefits of these practices, regardless of students' religious persuasions. However, questions remain to students from traditional religious communities regarding the spiritual character of these practices, raising concerns regarding the proper place for them within secular education.

## Chapter 5: Secularization

Although the improvement of mental and physical health within the public and among medical professionals and students should not be minimized, the historical trend of yoga's acculturation in North America mirrors the general secularization of Western societies. As a concept, "secularism" encompasses a plethora of meanings regarding how societies have moved away from traditional forms of religious practice. Charles Taylor (2007) characterizes secularization as reference to religion in three ways: (1) as "retreating in public space," (2) as the "type of belief and practice which is or is not in regression," and (3) as a "certain kind of belief or commitment whose conditions in this age are being examined" (p. 15). Beyond simply retreating from public space or its reconsideration, religious discourse, symbols, and the communities that house them may be seen as leaving the dominant role in shaping public discourse, leaving general society to operate sans particular guidance from religious or spiritual texts (Berger, 2011). This situation raises the contemporary concern for how pluralism in thought ought to be addressed when persons, now of minority persuasion, object to either a practice's secularization or to the integration of a practice deemed inherently spiritual or religious into public education.

Based on the history previously described, yoga's religious backdrop tends to fall under these definitions to varying degrees. In recognition of De Michelis' (2005) prior

description of yoga's acculturation in the United States, the religious background of yoga appears to retreat from the public space, crowded out by advertisements regarding its trendiness and health benefits. Furthermore, questions raised by the religious backgrounds associated with yoga may fall under this same force of secularization, with claims that modern postural yoga is sufficiently removed from its religious background to render any opposition to its practice to be foreign to those outside the objecting communities.

Modern postural yoga and mindfulness meditation may also stand out in the public sphere as disenchanted forms of religion. As Max Weber (2009) describes in his essay "Science as a Vocation," "the fate of our times is characterized by rationalization and intellectualization, and, above all, by the 'disenchantment of the world'" (p. 155). In place of understanding objects, practices, and even philosophies to hold enchanted, magical, or spiritual properties, they are stripped of their meanings and considered solely in terms of quantifiable knowledge and the logic by which they are understood. Other commentators have seen this trend tied to advancing the spirit of capitalism, allowing for any practice to become sensualized, commodified, and commercialized (MacKinnon, 2001). In the case of yoga, this trend may be seen not simply with health care's commodification of yoga for its medical or psychological benefits, but also in how yoga can add prestige within an individual's subculture, such as what has been called "Hollywood Yoga" in promoting beauty (Frost, 2008). One may even see its use in

promoting pet care products through dog yoga, also known as “doga” (Bratskeir, 2015). The original purposes of the activity have been left behind for the sake of advertising, with any goals dictated by market forces.

This new orientation for practices demonstrates the flexibility of spiritual techniques within secular society, and potentially influenced by New Age philosophies regarding therapy. As De Michelis (2005) writes regarding modern postural yoga, the practice

... has been adopted and acculturated in developed societies as a healing ritual of secular religion. Flexible in its suitability to varied applications secular and sacred, [the practice] propagates polyvalent teachings which may similarly be “read” and adopted at various levels... The ultimate teleology of “God-” and “Self-realization” may or may not be adopted by followers, but it will nevertheless remain as a... background option (p. 260).

Similar trends have been noticed by Steve Bruce (2002) in New Age approaches to therapeutic practices, as opposed to traditional religions. Per his observations, religions from around the world have asserted their ability to provide psychological therapeutic outcomes. However, these outcomes are not the major goal of the traditions, but rather, they are secondary or tertiary products of pursuing the primary goal of the faith tradition, e.g., union with the divine, acquisition of paradise post-mortem, etc. (Bruce, 2002). New Age spiritual tendencies recast these therapeutic outcomes as the primary goals of

religious practices. As Bruce (2002) writes, “Good health [and] supportive relationships are no longer the accidental by-product of worshipping God; they are the goals sought” (p. 85). The disseminators of yoga within the United States may have held this outcome as among their goals, with Sarah Strauss (2005) commenting how Vivekananda produced “an all-encompassing, universalist yoga system that could seemingly expand to include every religious and spiritual tradition in the world” (p. 119). Across the vast religious and cultural and pluralism within the United States, Vivekananda’s vision appears realized within a spiritual marketplace, where people exchange information on how practices improve one’s personal well-being.

Jeffrey Bishop’s (2011) commentary on envisioning medicine for its measurable and technical purposes may prove useful in understanding the contemporary use of yoga in managing mental and physical health conditions. In his book *The Anticipatory Corpse*, Bishop describes how medicine has come to understand the body as endlessly manipulatable, citing early medical school experiences with cadavers in anatomy laboratory as acquainting students with how the body can be manipulated for the sake of medical knowledge. He proposes that contemporary medicine is obsessed with understanding how the body can be measured with respect to these manipulations, as detailed through a host of forms meant to capture the psychological, physiological, spiritual, and social impacts of a treatment, taking for an epistemological standard the dead body. The numerous studies on yoga and mindfulness meditation in contemporary



medicine may stand as an example of this behavior among physicians, desiring to measure just how one's body and emotions may be influenced empirically through engaging these practices. However, such forms overlook questions that may be particular to religious communities regarding these practices, namely, concerns regarding the nature of practices intrinsically, rather than seen as merely a means to an end.

Contemporary American practitioners who have contributed to this higher level of accessibility have admitted that secularization stands as a threat to the traditions, but they also see it as an invitation to recontextualize elements of a tradition within a culture. As Kabat-Zinn himself questions, "Is there the potential for something priceless to be lost through secular applications of aspects of a larger culture which has a long and venerable, dare we say sacred tradition of its own?" (Williams & Kabat-Zinn, 2011, p. 4). He recognizes that such loss is possible, but suggests instead that mindfulness-based stress reduction attempts to recontextualize the essence of the practices' features into a modern context. At the same time, the very attempts to define the "essence" of a practice come from outside the tradition, which may raise questions among Buddhists regarding whether the meditative practices advocated in contemporary medicine adequately capture the scope of what mindfulness is and can be (Williams & Kabat-Zinn, 2011).

In discussing the subject of secularization, one observes how Eastern religious practices have come to be adapted into general society by decontextualizing the disciplines from their religious heritage. By so doing, Americans have come to appreciate

yoga as one among many methods to achieve wholeness of body and soul, measuring each practice's effectiveness in achieving various outcomes through medicine. However, this goal remains secondary within the traditions from which they come. To traditional religious adherents, this decontextualization of the modern age stands as tragic due the loss of the fullness behind these practices, adapted to meet secular demands rather than spiritual ends. These communities may see these practices positively or negatively, as will be described subsequently, but they must learn to navigate within a society that deems these practices as universalizable means rather than aimed toward religious ends if secularization's continuation is desired.

## Chapter 6: Objections

The secularization of these two practices has not occurred without opposition in their generalized use, however, having been met with resistance both from their originating traditions and from other religious traditions' adherents. To the former, one recognizes movements within the American Hindu community to recontextualize forms of yoga commodified in the West into their original contexts within religious communities (Jain, 2012). Other religious groups that have not had yoga or mindfulness as a part of their tradition may find that secularization does not go far enough in decontextualizing these religions. The critiques on both sides typically consider whether a tradition can or should be secularized in this manner, with traditional Hindus bemoaning yoga's commodification by Western consumerism and with others concerned that these practices cannot be adequately decontextualized – regardless of physical or mental benefits. Adherents within the latter traditions may be advised to stay away from yoga or mindfulness meditation in any form, as was the case in the issuance of a *fatwa* (Islamic legal opinion) against yoga by the Indonesian Council of Ulemas (Ramstedt, 2010). How widespread these beliefs are and the extent to which they are followed also varies from population to population, with the Los Angeles times noting that the aforementioned *fatwa* did not carry the force of law, and as such, was widely ignored by the broader community (Watson, 2009). Similarly, a ban of yoga in Malaysia provoked such public

outrage that the prime minister was compelled to step in to overturn the ruling (MacKinnon, 2009). By contrast, in a Pew survey of Protestant evangelical leaders attending the Lausanne conference, 90% of those surveyed found engaging yoga as a spiritual practice to be incompatible with evangelicalism (Lugo, Cooperman, O'Connell, & Stencel, 2011).

To study these objections further, the faith tradition of Orthodox Christianity will be examined here regarding its objections of the latter form. Specifically, the main objections to Orthodox Christians' participation in both yoga and mindfulness meditation may be considered as follows:

- (1) The inability to decontextualize the practices from their religious origins sufficiently, thus leading to action deemed to be outside the Faith and spiritually dangerous
- (2) The secularized meaning of the traditions as anthropocentric, rather than Christocentric
- (3) The sufficiency of the Orthodox Christian tradition to address and remedy the maladies of the soul and body

Material for this discussion will draw from multiple sources within Orthodox literature, including voices from Orthodox laity and clergy, that would support these claims. These citations are not meant to be an exhaustive discussion of Orthodox Christian considerations of yoga, mindfulness meditation, and Eastern religious practices in

general. Rather, they are meant to help form an understanding of why a student such as Josephine would refuse to participate in these practices based on what she had received from her faith tradition and community, as well as tenets she may have discussed with her Orthodox peers. Passing discussion of a dissenting opinion by Orthodox Christians will be considered with regard to postural yoga specifically. However, this dissent does not deter from the main objective of this project: to demonstrate that faith traditions, or subsets thereof, would hold to oppositional views of these practices that would inhibit their ability to practice.

To Orthodox Christians, the practice of yoga stands as too tied to spiritual harms to embrace their regular practice. Among the clergy of the Orthodox Church, the Holy Synod of the Greek Orthodox Church reacted strongly against the United Nation's advocacy of yoga. Specifically, when the twenty-first of June was established as International Yoga Day, the Holy Synod decried the practice of yoga as having "no place in the lives of Christians" since it is a fundamental aspect of Hinduism, and as such, should not be considered a "form of exercise" but of worship ("Are You Christian?", 2015). The words of the recently glorified Elder Paisios of Mount Athos stand out as among the strongest statements regarding the nature of yoga. When faced with a question regarding the self-control acquired by yoga as practiced by Hindus, Elder Paisios (2010) replied that their practices represented satanic practices, meant only to provide flexibility to the body, to invite the admiration from others, and to provoke laughter in demons. By these

statements, whether explicit or implicit, clergy, laity, and monastics position yoga in the minds of Orthodox Christians as holding spiritual harm.

Laity have also expressed concerns regarding the practice of yoga through distribution of articles and books that share their testimonials. *The Gurus, the Young Man, and Elder Paisios* describes a young man's experience with yogis in India and an Orthodox Christian elder on Mt. Athos. The text portrays many vivid, yet disturbing, encounters by the author in following yogis throughout India (Farasiotos, 2008). Given the personal nature of his story, he brings together elements that may not be intuitively united to the observer, such as citing the practice of yoga alongside witchcraft and Ouija board use. By so doing, he perceives a common source in these practices, even though laity in the United States may find a stark contrast present in their lived experience between the yoga studio down the street and the joining of a coven.

However, in the English-speaking Orthodox world, his understanding of these practices has been considered relevant to the spiritual life of Orthodox Christians, having been discussed by the likes of author Khouria Frederica Mathewes-Green (2009) in her podcast "Here and Now." While Mathewes-Green does not speak for the Orthodox Church as a whole, she represents a popular voice within Orthodoxy in the United States. In similar fashion, Mathewes-Green's (2009) discussion of the book transitions rapidly from discussing the author's encounters with yogis in India to her personal experiences involving witchcraft in college and experimenting with what she considered dangerous

meditative practices in Mahayana Buddhism at the suggestion of a prior romantic interest. Thus, the author's piece postures readers to react not only contra Hinduism by his stories, but would characterize the practices tied to the tradition to convey a level of spiritual harm comparable with sorcery.

Joseph Frangipani develops more explicit commentary about yoga in providing his testimony of leaving Roman Catholicism for Hindu and Buddhist spiritual practices, ultimately leaving all of these practices behind for Orthodox Christianity. In his piece *Hidden Fire*, Frangipani (2015) describes the dangers associated with practicing yoga, even as a form of exercise. Commenting on *hatha asanas* specifically, he cites readings with which he had become familiar through his personal practice that described the intrinsically spiritual nature of the physical postures. For example, he cites Ernest Wood in describing how "by practicing [the postures] without providing the proper conditions of body and mind," people have acquired incurable illnesses and even "madness." Aside from describing the dangers, he quotes Swami Param of the Classical Yoga Hindu Academy on those who consider yoga solely physical postures, likening such descriptions to calling Christian baptism "just an underwater exercise." Interestingly, both Frangipani's article and the aforementioned book follow the narrative pattern of being raised in the Christian faith – either within the Orthodox Church, or in a non-Orthodox body – abandoning the faith for the sake of exploration of another set of traditions, coming to perceive a spiritual danger within those traditions, and subsequently leaving

those traditions wholly to return to the Orthodox Church. These stories may be considered “reactionary” in approach based off of the personal experiences of these individuals, but nevertheless, represent a mainstream means by which Orthodox Christian laity may come to appreciate Eastern religions and the substance of any associated practices.

Even if taken solely as a physical practice divorced from its religious practices, the Orthodox Church would criticize use of the practice leading toward the wrong goals regarding health and health care. Overcoming physical and mental needs do not have to be – indeed, per the Church, should not be – the ultimate goal toward which the Orthodox Christian strives, for their goal is not in attaining immortality by means of contemporary medical practice. Instead, the goal of all their lives is to conform themselves to the Image (Icon) of Christ; as chanted in the most common divine liturgy of the Church, the liturgy of St. John Chrysostom, “let us commend ourselves and one another and our whole life to Christ our God” (Greek Orthodox Archdiocese, 2017). To Orthodox Christians, this commendation to Christ enables them to lift their human nature to the divine through the Incarnation of Christ, especially in His glorification. To achieve this union with God, ascetic practices are incorporated into the life of the Orthodox Christian to mortify desires of the flesh deemed to corrupt the soul. Hagiographies within the faith tradition describe those saints who have withered their bodies down through fasting and keeping vigilant prayer watch for the sake of their spiritual health (Velimirovic, 2008). Of course,



the fasting regimens taken on by an Orthodox Christian should not be performed without the guidance of an authority within the Church, e.g., one's spiritual father or mother (Vlachos, 1994). However, the overarching goal of relinquishing one's body from physical comforts may stand against the secular goal of yoga and mindfulness – and indeed, contemporary health care at large – in achieving physical well-being.

To the third point, any effects of calmness or general sense of wellness acquired by the practices of yoga the Orthodox Christian may see as better fulfilled in the life and practice of the Church. As the Holy Synod of the Greek Orthodox Church emphasized in their rebuttal of the International Yoga Day, Orthodox Christians should seek their comfort in God through the Church, rather than through rituals associated historically with Hinduism (“Are You Christian?”, 2015). Similar comments are made with regard to the practice of mindfulness meditation. As Christopher Kies (2015) writes, both Buddhism and Orthodox Christianity recognize the common contemporary malady of distraction and see the regulation of the mind as a route by which distraction may be managed. Kies (2015) writes how their approaches differ in how the mind is used to overcome the scattering of the mind. For mindfulness meditation, practitioners may emphasize the emptying of one's mind to simply observe one's physical movements. However, Orthodox Christianity would advocate that one should not empty one's mind for the sake of these observations, but to focus one's attention on Christ. Additionally, any observations made by the mind in mindfulness interventions are advanced as holding

neutral value. By contrast, the practice of *nepsis*, also known as watchfulness, by the Orthodox Christian promotes the attendance to one's thoughts for the removal of those thoughts that would detract one from God and the embracing of those thoughts that would unite one to God.

As a challenge to the accounts above, the work of authors within the Church regarding the possible acceptable benefits of these practices will be considered here by the lay author Dr. Christine Mangala Frost, a convert to the Orthodox Christian Church from Hinduism, and by Fr. George Morelli. In an article published to the Institute for Orthodox Christian Studies, Dr. Frost describes her prior experiences with yoga and her current interpretations of the practice (Frost, 2008). After considering the history of yoga in the United States previously described, she faces challenges by Christians who would desire to integrate these practices into their own spirituality. Specifically, she comments on how a Benedictine monk, Dechanet, had advocated the Christianizing of yoga through integrating Christian prayers into the postures. Similar commentary has been made regarding the recontextualization of yoga within Christian spiritual disciplines, with the rise of other Christianized forms of the postures incorporating prayers and/or praise music, e.g., Holy Yoga (Boon, 2009).

In response, Dr. Frost (2008) found that this integration actually detracted from the prayers themselves, refocusing the activity on oneself in achieving the postures rather than on enhancing the experience of prayer. However, Dr. Frost concedes that yoga may

be used separate from prayer for its physical health benefits, writing that “it is perfectly feasible to use yoga as a keep-fit routine to tune the body, and make it a fit instrument for Christian prayer” (Frost, 2008). This narrative contrasts with the prior two lay experiences by providing insight into how this convert reinterprets her religious history in a manner that takes what she considers acceptable into her contemporary practice, rather than rejecting the subject of yoga wholesale. At the same time, she writes that these practices must be undertaken with extreme caution to avoid physical, psychological, and spiritual damage incurred inadvertently through engaging physically demanding postures or meditative practices associated with the postures.

Fr. George Morelli (n.d.) of the Antiochian Orthodox archdiocese comments similarly in comparing the practices of the early Church fathers with the mindfulness practices of Buddhism, recognizing the spiritual impact of using contemporary techniques without the guidance of the Church. In his article, he draws from St. Anthony the Great’s writings in the *Philokalia*, noting how his quote on “‘the power of discrimination, [that is,] scrutinizing all the thoughts and actions of a man, distinguishes and sets aside everything that is base’ ... can be applied to all bad habits and feelings ... to be mindful, watchful, vigilant and to prepare a counteraction” (Morelli, n.d.). However, this Orthodox understanding of mindfulness remains at odds with Buddhist understandings based on its commitment to using the experience to encounter God noetically. Based on this goal, he does find space for using decontextualized mindfulness

practices studied in the modern age, “as long as these techniques are enlivened by Christ” (Morelli, n.d.). In this sense, he follows the advice of Fr. Alexis Trader (2011) in his commentary on psychotherapeutic techniques broadly: that any objectionable portions of the practices should be removed prior to engaging them as Orthodox Christians.

Based on the above reflections, one may ask when yoga remains “yoga” in some sense. For example, a particular posture in a stretching routine may have separate origins in yoga and in an athletic warm up. As such, why would that posture unto itself be a matter of concern, as would appear to be the case in modern postural yoga? If an Orthodox Christian, for example, engaged in these stretches under the banner of “wellness stretches” rather than “yoga,” would there be objections? What a physical posture achieves and signifies ontologically is a question beyond the scope of this paper, with questions arising regarding how one would epistemologically determine the essence of a posture.<sup>1</sup> However, what can be recognized is how a term can shift the environment created. When one engages in “yoga” rather than “stretches,” the vision that enters the minds of participants would contain an awareness of the religious background that could still shape the activity into a spiritual discipline. At the least, then, recognition should be made of how language can transform persons’ perceptions and experiences of a practice.

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<sup>1</sup> The Orthodox Christian would likely pursue one with sufficient purification of soul through faith to be able to perceive such realities in a spiritually sound manner. See chapter four of Engelhardt (2000) for commentary on patristic epistemology and its relation to bioethics

These reflections serve not simply to recognize diversity in the interpretations of these practices, but to face the real challenges considered within communities regarding the character of practices like yoga and mindfulness meditation. In looking to the Orthodox Christian faith as an example, one observes how both laity and religious authorities warn against the spiritual dangers of yoga. Based on the goals of the Orthodox Christian life, the secularized aims of yoga and mindfulness, as well as modern health care in general, stand as challenged by the Church's hagiographies. Any ills of the soul regarding distraction may better be served within the life of the Church, as understood here best in the practice of watchfulness. Of greatest importance to the Orthodox Christian is not their physical or mental well-being, but rather, their spiritual health. This spiritual wholeness can be influenced by those physical practices that have religious roots, whether perceived as positive from within their tradition, e.g., prostrations, or as negative from outside their tradition, e.g., *asanas*. Due to this emphasis, even if yoga and mindfulness meditation prove useful by biomedical measures in treating disease or preserving physical health, members of the Orthodox Church would be willing to abstain from these benefits for the sake of spiritual wellness.

## Chapter 7: Discussion and Resolution

In consideration of the history of yoga and mindfulness within their religious traditions and in the United States alongside analysis of their secularization and interpretations in the contemporary age, how should the initial case be resolved in a way that would respect all involved parties? What ethical considerations should be contemplated in the situation faced by both the student paying for the education and the medical professional teaching the course? To examine this case, discussion will center on general methods of resolving disputes in the face of difference, with particular attention given to what constitutes the content of medical education, what ought to be required of this education when offered by public vs. private medical schools, and what the scope of conscientious practice should be for future conflicts in the students' practice.

In response to increasing pluralism in the United States, H. Tristram Engelhardt (1996) considers how best to develop a secular system of ethics among individuals of differing religious and philosophical persuasions. He recognizes how moral disputes have failed to be resolved by appeals to various systems of reason among individuals with different understandings of both the content of an ethical dispute as well as the rules by which one ought to engage these challenges. Therefore, he recognizes a need for individuals to interact together based upon agreed norms, what has been called a *modus vivendi* or secondary ethic. Basing his system on a desire for peace among disparate

communities and a commitment to Enlightenment principles, he advocates for use of an ethic based on permission among persons, i.e., those individuals with ability to choose freely and rationally among options presented to them. By this method, individuals and communities would be given the right not to be interfered with based upon their preferences, allowing for a spectrum of practices that may be highly controversial in the current age, e.g., infanticide, but would nevertheless be permitted for the sake of preserving the particular moralities and ethical systems established within communities in which individuals consent to participate.

Based on the ethic described above, questions arise regarding what the student consented to when enrolling in a public medical school program, as well as what medical schools are charged to have within their curriculums. In expectation of receiving training that would prepare her to practice biomedicine, Josephine would hope that entrance into this educational system would provide her the baseline skills required to practice medicine effectively. Additionally, support mechanisms may be established within the curriculum to ensure that she meets these goals. However, the specific content of these curricular interventions may not be disclosed at the time of enrollment, leading to potential future conflicts. Clearly, to be informed in entering into this educational experience should not entail overbearing detail regarding the requirements of the curriculum, as extraneous knowledge may hamper Josephine's ability to decide reasonably whether to undertake the requirements of the degree program. At the same

time, those elements of a curriculum that may stand as controversial to students from communities clearly represented in the United States, e.g., requiring Jehovah's Witness students to order blood transfusions, or within certain areas of the country, e.g., requiring in-person cadaver laboratories for Navajo students, may require disclosure to ensure an informed decision is made (Alvord, 2013).

Further questions may be posed regarding what would constitute a "public" medical education when a diverse array of interpretations of "health" exist. The main purpose of the experience of medical doctoral programs is to familiarize and engage students sufficiently to be able to operate within the context of contemporary biomedicine. However, what is required to operate in the diverse landscape of modern health care may involve discussion of TCAM, as promoted by the NIH. The content of medical education should include the ability to engage not only the biomedical subjects required for an individual's future practice, but also how to navigate patients' questions regarding TCAM from a biomedical perspective. Additionally, graduates of medical degree programs should learn how best to interact with TCAM practitioners, whether by integrating them into one's practice model for those demonstrating likely benefits to patients, or by advocating avoidance of those practitioners whose practices are deemed ineffective or harmful biomedically.

To meet this requirement, at a minimum, students should be given opportunity to learn about TCAM via lecture, and indeed, this modality stands as among the most



common form of teaching about TCAM (Berman, 2001). Visiting TCAM or integrative medicine facilities may also assist students in understanding from TCAM practitioners themselves their role in improving health. Participation in these practices by students may assist them in understanding the experiences of their patients, with possible incorporation of studies on the students to further understand the practices, like those cited by Saoji (2016). Thus, mindfulness meditation and yoga may be incorporated into the curriculum in part to breed this understanding alongside possible self-care applications. At the same time, this experiential knowledge should not be required of participants who object on grounds of different visions of health, such as the visions of Orthodox Christians previously described. Describing the biomedical studies of therapies that are not standards of care alongside discussion with TCAM practitioners should suffice to prepare future physicians for the challenges of modern health care.

One may also consider whether the public nature of the medical school impacts the nature of the curriculum that should be advanced, and whether a private medical school would face similar challenges. While providing general training for operation within contemporary biomedicine, private medical schools may be able to cater to the needs and desires of specific communities. The encouragement by the NIH would still hold regarding incorporation of TCAM within curriculums, although the features of this curriculum could take on an approach more consistent with a community's values and expectations. One could foresee a private medical school mandating the practice of yoga,

mindfulness, and other TCAM practices because of a community's commitment to providing integrative medical services, with the expectation that physicians trained there would follow similar commitments. So long as public funding is not used to support these portions of the programs specifically, the mandate for private training programs may stand as more justifiable based on their operation within a specific community's moral framework. At the same time, any student that elects to enroll at such an institution should be informed regarding the institution's commitment to a particular community's system for understanding these practices, as may be expected similarly within a Roman Catholic training hospital with regard to lack of exposure to abortion services. By these means, diversity in approach and devotion to TCAM practices may be promoted based on the locale in which a private medical school abides.

The common normative bioethical system of principlism is often invoked to frame conflicts within health care, and may be broadened in scope here to engage questions of the beneficence of using yoga and mindfulness meditation as a set of therapeutic modalities for patients and students. This system of ethical thought typically frames questions of a case in terms of a person's ability to make an autonomous decision, the beneficence or nonmaleficence of an intervention, and whether the intervention's distribution is just (Beauchamp & Childress, 2001). As established based on the prior paragraph, the autonomy of the student may be challenged based on her capacity to discern her compatibility with the medical program and so consent to enrollment. For

patients, these concerns may also arise with a biomedical practitioner's counsel regarding a practice that falls outside biomedical standards of care. Without this standardization, what should physicians relate to their patients in order for them to make an informed decision? Physicians may be able to refer patients to yoga and mindfulness-based interventions based on patient interest, as well as based off of the biomedical data previously described, but must emphasize to patients that these practices do not stand under the typical purview of the biomedical practitioner. Instead, they can only comment based off of the studies that they have reviewed to date regarding the relative benefits and risks of the procedures to enable patients to decide for themselves whether to pursue yoga. Just access to yoga and mindfulness services may be dependent on both location in which patients live, as well as economic ability to pay for participation. However, because these therapies are not standards of care, questions of just access to these services may be of lesser concern.

The benefits of these programs in medical education would be apparent to school administrators who desire that their students avoid burnout so far as possible, thus looking to ensure their proper functioning as future health care providers. However, difficulty may arise if such a school was placed in a community that stood against yoga and mindfulness practices, potentially leading to distrust within the community of the school due to its failure to accommodate community members who would desire to enroll in its programs. Furthermore, funding from local community members may decrease,

putting the general training of medical students at risk without sufficient community buy-in. Thus, as discussed with regard to private medical schools, great care should be taken in attending to the local community's perspectives to ensure their continued support.

What now may be considered is how this student may operate in the future in her practice. Ought she refer patients who desire to participate in mindfulness-based stress reduction programs to practitioners willing and able to refer her? Could a case be made that she is not obligated to refer patients to anyone for these services? Could she even refuse to treat individuals in her medical practice who engaged in yoga based on fears of spiritual contamination by association? Furthermore, how could her medical school evidence that she is basing her decision based on conscientious practice, and should this basis carry more weight than other reasons, e.g., skepticism regarding the effectiveness of the postural practices?

These questions fall under the broader umbrella of concerns regarding the scope of conscientious practice. “Conscientious practice,” also known as “conscientious refusal” or “conscientious objection,” refers to the choice made by some health care professionals to abstain from a procedure on grounds of conscience, whether religiously- or philosophically-grounded. Typical objections include those related to the involvement of health care professionals at the beginning or the end of a life, be that the patient’s life in the case of removing respiratory support or the conception of human life as an embryo in the case of prescribing contraceptive therapies. However, such practices can also be

considered in other modalities, such as willingness of physicians to prescribe narcotic pain medications to patients when they have personal or professional objections to the prescribing practice (Brauer, Yoon, & Curlin, 2015). Julian Savulescu (2006) contends that physicians are obligated to provide those services expected to be allowed at law, and that failure to provide these services constitutes a failure to the profession warranting expulsion from it. Concurrently, physicians in the United States surveyed about typical and atypical cases of conscientious refusal have considered the practice acceptable so long as accommodations are made for patients through referral to another physician or health care provider (Curlin, Lawrence, Chin, & Lantos, 2007). Such requests should be accommodated so far as possible at law in the United States, as well as out of general recognition and respect for the plurality of philosophical and religious traditions in contemporary society.

How should each of the above questions be considered? As the practice of yoga is not an emergent or urgent need for a patient's physical or mental well-being, referral to an able and willing practitioner appears appropriate. Arguably, because yoga and mindfulness-based interventions are not standards of care in practice, a physician should not be under obligation professionally to refer patients to services or to providers who would link them to services. However, the exclusion of patient populations based on their personal practices forms a basis for discrimination in practice patterns based not on disease or influences thereon, but on the personal characteristics and practices of the

patients themselves. While certain religions may limit clinical contact based on gender, e.g., Islam limiting male to female contact, the actual treatment should not be swayed based on a patient's personal practices unless clearly impacting care, e.g., a patient removed from a practice after repeatedly selling their opioids on the street (Strickland, 2012).

Lastly, in contemplating objections to the practice of yoga, the legitimacy of refusal to participate should be considered on a case-by-case basis. Refusal to participate may be due to deeply held religious or philosophical beliefs regarding the nature of the practice, and as such, should be respected. Questions about the empirical data supporting yoga and mindfulness meditation may be met with references to articles as those previously discussed; however, the mandating of participation may still constitute forcing a student to act against conscience, here against the commitment to skeptical inquiry that has led them to believe in the ineffectiveness of the practices. At the same time, refusal to participate for fear of losing study time may demonstrate a manifestation of the very malady that yoga and mindfulness interventions seek to overcome: the stressors associated with medical education. Counsel should be provided to the student to prevent any burnout, with opportunity to participate in the session provided or in other modes of self-care. Due to the diversity of requests to opt out of these practices, the portion of an educational session on TCAM in which the practices take place should not be made mandatory. Curriculums may structure required lectures about the subject of these

practices before and after these sessions to encourage student participation, but explicit mention of options for students to decline participation or to act as observers of the practice should be made prior to beginning the instruction.

Hearkening back to the initial case discussion, Josephine and Dr. Yancey both appear to have the good intentions in approaching the practices of yoga and mindfulness meditation. Both student and physician desire to establish the proper vision of health and health care in their current practice, although they differ in what this means for them based on their respective communities' understanding of the nature of these practices and the desirability of their objective physical and mental health outcomes. Although Josephine would likely appreciate the ability to relieve stressors associated with medical school education, she would like to engage only in those practices she deems as consistent with her faith tradition. At the same time, Dr. Yancey and the medical administration generally has the professional responsibility to train Josephine to understand what these practices are to ensure she is well-equipped to engage the diversity of contemporary health care in the United States. As such, the school should be willing to accommodate her request for exemption from participation so long as she engages in other forms of wellness activities as understood by her, e.g., practicing somatic relaxation techniques, *nepsis* through using the Jesus prayer, etc. Furthermore, future sessions should include opportunities for students to remove themselves from directly engaging in these practices by observing other students or by watching videos describing the

practices. While the medical school administration may not be able to be aware of every possible objection, sufficient flexibility should exist within the curriculum to protect a person's ability to act autonomously in enrolling into the program to acquire the requisite biomedical knowledge and interprofessional skills to operate in contemporary health care.



## Chapter 8: Conclusions

In summary, yoga and mindfulness meditation stand as examples of TCAM practices that can lead to conflicts among practitioners regarding their proper role within secular health care. At once, they prove to be helpful as adjunct therapies for patients and as coping strategies for health care professionals and trainees. However, based on their religious heritage, some communities find them to hold spiritual impact on their well-being, even when commodified for the sake of secular health care goals. The discussion here comments mostly on one tradition's objections to the practice; however, the range of objections found among religious and philosophical traditions may not be limited to these kinds. Additionally, other practices found within TCAM that are incorporated within the curriculum may also stand to be challenged based on religious and philosophical objections. The scope of this objection should not justify discrimination based on a patient's own personal practices, but should be able to be met within the health care system to accommodate a physician's personal beliefs regarding TCAM practices in question. Any patient requests for referral to yoga services need not be accommodated by health care professionals because it is not a standard of care, unless otherwise dictated by the employing agency of a physician. Finally, the reasons for these objections vary significantly, with only those objections that would lead to discrimination among patients meriting attention regarding the legitimacy of a conscience claim.

The subjugation of religious practices to the periphery in secular society need not mean that the challenges raised by religion and spirituality ought not be addressed within contemporary biomedicine. The goal of incorporating yoga, mindfulness meditation, and like practices presents an opportunity for students to realize the different kinds of manners of ensuring health, as well as to consider what might constitute “health” and “well-being” (Berman, 2001). However, the interpretations of spiritual or existential well-being in secular society may vary dramatically from community to community, indeed from individual to individual. Although some of these practices bear resemblances to each other, students from traditional religious and spiritual backgrounds may object to how decontextualized practices are used within medical education and society generally. Furthermore, as Frangipani (2015) notes, if yogis themselves recognize the spiritual significance of these physical poses when practiced as yoga, students would be robbed of the depth of the tradition from whence yoga stems – whether desirable or unconscionable – if taught of them solely in secular terms. To some students, the practices cannot be sufficiently decontextualized or recontextualized to be considered worthy of engagement. To others, sufficient recontextualization of the practices may be possible, but only as based within their own community structures, rather than by the hand of secular society broadly or by a secular medical school curriculum specifically. While difficulty arises in establishing the essential nature of mental and physical states that share diverse origins with common features, the labeling of these practices by terms with religious

connotations charges the environment with spiritual implications deemed harmful to some students.

In recognition of the increasing number of Americans who are “spiritual but not religious” and “nones,” the majority of the students who enroll in medical school likely will not hold these kinds of objections, considering the practices to have meaning that they can provide them within any context that they live (Funk & Smith, 2012). However, there will remain a subset of the population, albeit no longer the dominant group in society, that will hold to more traditional religious beliefs regarding the nature of some historically-rooted practices like yoga, mindfulness meditation, etc. If desired to continue peacefully, the secular landscape of contemporary society would minimize the influence of religion in public life, while not forcing communities that maintain traditional religious belief systems and obligations thereto to adopt standards at odds with their beliefs.

If health care systems desire to recruit a diverse body of physicians to meet the needs of all communities from whence patients come, a representative sample of the population will likely include those communities who object to yoga and mindfulness meditation. Requiring the participation of these groups in the practices as part of formal education may serve to discourage application of students from these communities into medical schools, thus serving to homogenize rather than diversify the class. Even though exposure to yoga, mindfulness, and other TCAM practices is meant to diversify the health care system by making it a more “holistic” environment in addressing body, mind,

and spirit, the mandated participation in these practices may have the reverse effect, deterring students from traditional religious backgrounds from entry into the medical profession at all. If a school values the diversity of contemporary American society, Eastern religious traditions should not be favored as the sole source of practices originating in religious traditions that are integrated into education. Thus, to ensure that a representative, heterogeneous health care team is formed for the sake of serving their communities well, medical schools should attend to students' requests for accommodation of their religious beliefs with respect to participation in TCAM exercises.

Medical schools are right to desire their students' well-being and awareness of health systems beyond the biomedical model. The problem of burnout should be addressed sufficiently within medical school curriculums to ensure that the students who do enroll can become healthy, functioning members of the medical profession. TCAM practices stand as one part among many modalities that may be used to address burnout, including increasing opportunities for reflection on purpose in medicine and system resolutions that would enable physicians to avoid physical exhaustion. If a diverse student population is recruited, the students themselves may be surveyed regarding their traditions' or communities' methods for approaching burnout and stress, allowing for increased voice for trainees as well as diversification of burnout treatment. At the same time, the students should be aware of the multiple TCAM practices in which their patients engage and about which they may inquire regarding their effectiveness. Offering

lectures and workshops relevant to these questions should be appropriate to prepare future physicians for the challenges of a now pluralistic health care system, with students becoming aware of methods of study employed in the curriculum that would possibly compromise their belief systems. In recognition of these considerations, medical schools should be mindful to posture yoga and mindfulness meditation within their curriculums in a manner suitable to serve a diverse student body and the future patients they will serve.

## Bibliography

- Alvord, L. A. (2013). Medical School Accommodations for Religious and Cultural Practices. *Virtual Mentor*, 15(3), 198. Retrieved from <http://journalofethics.ama-assn.org/2013/03/ecas3-1303.html>
- Are you Christian? Forget about doing Yoga! (2015, June 17), *Protothema*. Retrieved from <http://en.protothema.gr/are-you-christian-forget-about-doing-yoga/>
- Baer, R. A. (Ed.). (2015). *Mindfulness-based treatment approaches: Clinician's guide to evidence base and applications*. Boston, MA: Academic Press.
- Barnes, P. M., Bloom, B., & Nahin, R. L. (2008). Complementary and alternative medicine use among adults and children: United States, 2007. Retrieved from <https://www.cdc.gov/nchs/data/nhsr/nhsr012.pdf>
- Beauchamp, T. L., & Childress, J. F. (2001). *Principles of biomedical ethics*. Oxford University Press, USA.
- Berger, P. (2011). *The Sacred Canopy: Elements of a sociological theory of religion*. New York, NY: Open Road Media.
- Berman, B. M. (2001). Complementary medicine and medical education. *BMJ*, 322(7279), 121-122. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1119400/>
- Bishop, J. P. (2011). *The Anticipatory Corpse: Medicine, power, and the care of the dying*. Notre Dame, IN: University of Notre Dame Press.
- Black, D. S. (2014). Mindfulness-based interventions: an antidote to suffering in the context of substance use, misuse, and addiction. *Substance use & misuse*, 49(5), 487-491. doi:10.3109/10826084.2014.860749.
- Boon, B. (2009). *Holy Yoga: Exercise for the Christian Body and Soul*. New York, NY: FaithWords.
- Bratskeir, K. (2015, August 10). Why You Should Do Yoga with Your Dog, and How to Start. *The Huffington Post*. Retrieved from

[http://www.huffingtonpost.com/entry/why-you-should-do-yoga-with-your-dog-and-how-to-start\\_us\\_55c3cdd2e4b0f1cbf1e46885](http://www.huffingtonpost.com/entry/why-you-should-do-yoga-with-your-dog-and-how-to-start_us_55c3cdd2e4b0f1cbf1e46885)

- Brauer, S. G., Yoon, J. D., & Curlin, F. A. (2015). US primary care physicians' opinions about conscientious refusal: a national vignette experiment. *Journal of medical ethics*, medethics-2015. doi:10.1001/jamainternmed.2015.4124.
- Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological inquiry*, 18(4), 211-237. <http://dx.doi.org/10.1080/10478400701598298>
- Bruce, S. (2002). *God is Dead: Secularization in the West* (Vol. 3). Oxford: Blackwell.
- Burley, M. (2000). *Hatha-Yoga: Its Context, Theory, and Practice*. Delhi: Motilal Banarsidass Publ..
- Cowen, V. S., & Cyr, V. (2015). Complementary and alternative medicine in US medical schools. *Advances in Medical Education and Practice*, 6, 113. doi:10.2147/AMEP.S69761
- Curlin, F. A., Lawrence, R. E., Chin, M. H., & Lantos, J. D. (2007). Religion, conscience, and controversial clinical practices. *New England Journal of Medicine*, 356(6), 593-600. doi:10.1056/NEJMsa065316
- Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F., ... & Sheridan, J. F. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine*, 65(4), 564-570. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/12883106>
- De Michelis, E. (2005). *A History of Modern Yoga*. New York, NY: Continuum.
- Dunn, L. B., Iglewicz, A., & Moutier, C. (2008). A conceptual model of medical student well-being: promoting resilience and preventing burnout. *Academic Psychiatry*, 32(1), 44-53. doi:10.1176/appi.ap.32.1.44
- Engelhardt, H. T. (1996). *The Foundations of Bioethics*. New York, NY: Oxford.
- Engelhardt, H. T. (2000). *The Foundations of Christian Bioethics*. Amsterdam, The Netherlands: Swets & Zeitlinger.

- Farasiotos, D. (2008). *The Gurus, the Young Man, and Elder Paisios*. Platina, CA: St. Herman of Alaska Brotherhood.
- Fares, J., Al Tabosh, H., Saadeddin, Z., El Mouhayyar, C., & Aridi, H. (2016). Stress, burnout and coping strategies in preclinical medical students. *North American Journal of Medical Sciences*, 8(2), 75. doi:10.4103/1947-2714.177299
- Flood, G. D. (1996). *An Introduction to Hinduism*. New York, NY: Cambridge University Press.
- Frangipani, J. M. (2015, July 3). Hidden Fire: Orthodox Perspectives on Yoga. *Pravoslavie.ru*. Retrieved from <http://www.pravoslavie.ru/english/80417.htm>
- Frost, C. M. (2008). Yoga and the Christian Faith. *Institute for Orthodox Christian Studies*. Retrieved from [http://www.iocs.cam.ac.uk/wp-content/uploads/m\\_frost\\_yoga\\_and\\_christianity.pdf](http://www.iocs.cam.ac.uk/wp-content/uploads/m_frost_yoga_and_christianity.pdf)
- Funk, C., & Smith, G. (2012, October 9). “Nones” on the rise: One-in-five adults have no religious affiliation. *Pew Research Center*. Retrieved from <http://www.pewforum.org/2012/10/09/nones-on-the-rise/>
- Greek Orthodox Archdiocese of America. (2017). The Divine Liturgy of Saint John Chrysostom. Retrieved from <https://www.goarch.org/-/the-divine-liturgy-of-saint-john-chrysostom>
- Hanus, S. H., Homer, T. D., & Harter, D. H. (1977). Vertebral artery occlusion complicating yoga exercises. *Archives of Neurology*, 34(9), 574-575. Retrieved from <http://jamanetwork.com/journals/jamaneurology/article-abstract/575886>
- Hatha Yoga. (2007). In *Encyclopaedia Britannica*. Retrieved from <https://www.britannica.com/topic/Hatha-Yoga>
- [Headspace]. (2016, June 28). *How a world-class cardiologist focuses with meditation*. [Video File]. Retrieved from <https://www.youtube.com/watch?v=FN4fo938ysk>
- History of MBSR. (2017). *Center for Mindfulness in Medicine, Health Care, and Society*. Retrieved from <http://www.umassmed.edu/cfm/mindfulness-based-programs/mbsr-courses/about-mbsr/history-of-mbsr/>



- Jain, A. R. (2012). The Malleability of Yoga: A Response to Christian and Hindu Opponents of the Popularization of Yoga. *Journal of Hindu-Christian Studies*, 25(1), 4. <http://dx.doi.org/10.7825/2164-6279.1510>
- Kabat-Zinn, J., Lipworth, L., & Burney, R. (1985). The clinical use of mindfulness meditation for the self-regulation of chronic pain. *Journal of behavioral medicine*, 8(2), 163-190. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/3897551>
- Kabat-Zinn, J., Wheeler, E., Light, T., Skillings, A., Scharf, M. J., Cropley, T. G., ... & Bernhard, J. D. (1998). Influence of a mindfulness meditation-based stress reduction intervention on rates of skin clearing in patients with moderate to severe psoriasis undergoing photo therapy (UVB) and photochemotherapy (PUVA). *Psychosomatic medicine*, 60(5), 625-632. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/9773769>
- Kies, C. (2015, June). An Orthodox Response to Mindfulness. *The Word*, 59(6), 22-27. Retrieved from [http://www.antiochian.org/sites/default/files/june\\_2015\\_word.pdf](http://www.antiochian.org/sites/default/files/june_2015_word.pdf)
- Kuan, T. F. (2007). *Mindfulness in early Buddhism: New approaches through psychology and textual analysis of Pali, Chinese and Sanskrit sources*. New York, NY: Routledge.
- Larouche, E., Hudon, C., & Goulet, S. (2015). Potential benefits of mindfulness-based interventions in mild cognitive impairment and Alzheimer's disease: an interdisciplinary perspective. *Behavioural brain research*, 276, 199-212. doi:10.1016/j.bbr.2014.05.058
- Larson, G. J., & Jacobsen, K. A. (Eds.). (2005). *Theory and practice of yoga: essays in honour of Gerald James Larson* (Vol. 110). Leiden, The Netherlands: Brill.
- Lau, M. A., & Grabovac, A. D. (2009). Mindfulness-Based Interventions: Effective for Depression and Anxiety: Evidence Supports Adjunctive Role for the Combination of Meditative Practices and CBT. *Current Psychiatry*, 8(12), 39. Retrieved from <http://www.mdedge.com/currentpsychiatry/article/65221/depression/mindfulness-based-interventions-effective-depression-and>

- Lugo, L., Cooperman, A., O'Connell, E., & Stencel, S. (2011, June 22). Global survey of evangelical protestant leaders. *Pew Research Center*. Retrieved from <http://www.pewforum.org/2011/06/22/global-survey-of-evangelical-protestant-leaders/>
- Lyndon, A. (2016). Burnout Among Health Professionals and Its Effect on Patient Safety. *Perspectives on Safety*. Retrieved from <https://psnet.ahrq.gov/perspectives/perspective/190/burnout-among-health-professionals-and-its-effect-on-patient-safety>
- MacKinnon, I. (2009, January 26). Indonesian clerics ban Muslims from practising yoga. *The Guardian*. Retrieved from <https://www.theguardian.com/world/2009/jan/26/indonesia-bans-muslims-yoga>
- MacKinnon, M. H. (2001). Max Weber's Disenchantment Lineages of Kant and Channing. *Journal of Classical Sociology*, 1(3), 329-351. Retrieved from <http://journals.sagepub.com/doi/abs/10.1177/14687950122232576>
- Maehle, G. (2006). *Ashtanga Yoga: Practice and Philosophy: a Comprehensive Description of the Primary Series of Ashtanga Yoga, Following the Traditional Vinyasa Count, and an Authentic Explanation of the Yoga Sutra of Patanjali*. Novato, CA: New World Library.
- Mathewes-Green, F. (Producer). (2009, July 10). *Frederica Here and Now: The Gurus, the Young Man, and Elder Paisios* [Audio Podcast]. Retrieved from [http://www.ancientfaith.com/podcasts/frederica/the\\_gurus\\_the\\_young\\_man\\_and\\_elder\\_paisios](http://www.ancientfaith.com/podcasts/frederica/the_gurus_the_young_man_and_elder_paisios)
- Morelli, G. (n.d.). Mindfulness as Known by the Church Fathers. *Antiochian Orthodox Christian Archdiocese of North America*. Retrieved from <http://www.antiochian.org/mindfulness-known-church-fathers>
- Mullis, E. C. (2015). The Pragmatist Yogi: Ancient and Contemporary Yogic Somaesthetics. *The Pluralist*, 10(2), 205-219. doi:10.5406/pluralist.10.2.0205
- NCCIH. (2013). Yoga: In Depth. *NIH*. Retrieved from <https://nccih.nih.gov/health/yoga/introduction.htm>

- Paisios, E. (2010). *Spiritual Counsels, Volume 3: Spiritual Struggle*. Souroti, Thessaloniki: St. John the Theologian Monastery.
- Parswani, M. J., Sharma, M. P., & Iyengar, S. S. (2013). Mindfulness-based stress reduction program in coronary heart disease: A randomized control trial. *International journal of yoga*, 6(2), 111. doi:10.4103/0973-6131.113405
- Ramstedt, M. (2010). A Fatwa against Yoga: Mitigating Conflict in the Face of Increasing Fundamentalism in Indonesia. *In Face of Conflict: Religion as a Force of Peace*. Retrieved from <http://irdialogue.org/wp-content/uploads/2010/12/A-Fatwa-against-Yoga-Mitigating-Conflict-in-the-Face-of-Increasing-Fundamentalism-in-Indonesia-by-Martin-Ramstedt-.pdf>
- Ross, A., & Thomas, S. (2010). The health benefits of yoga and exercise: a review of comparison studies. *The journal of alternative and complementary medicine*, 16(1), 3-12. doi:10.1089/acm.2009.0044
- Russell, W. R. (1972). Yoga and vertebral arteries. *British medical journal*, 1(5801), 685. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1787803/>
- Saoji, A. A. (2016). Yoga: A strategy to cope up stress and enhance wellbeing among medical students. *North American journal of medical sciences*, 8(4), 200. doi:10.4103/1947-2714.179962
- Savulescu, J. (2006). Conscientious objection in medicine. *BMJ: British Medical Journal*, 332(7536), 294. <https://doi.org/10.1136/bmj.332.7536.294>
- Schernhammer, E. (2005). Taking their own lives-the high rate of physician suicide. *The New England journal of medicine*, 352(24), 2473-2476. doi:10.1056/NEJMp058014
- Strauss, S. (2005). *Positioning Yoga*. New York, NY: Berg.
- Strickland, S. L. (2012). Conscientious objection in medical students: a questionnaire survey. *Journal of medical ethics*, 38(1), 22-25. <http://dx.doi.org/10.1136/jme.2011.042770>
- Taylor, C. (2007). *A Secular Age*. Cambridge, MA: The Belknap Press of Harvard University Press.

- [TEDMED]. (2016, March 23). *Why doctors kill themselves*. [Video File]. Retrieved from <https://www.youtube.com/watch?v=qyVAtZ9VZ4Q>
- Trader, A. (2011). *Ancient Christian Wisdom and Aaron Beck's Cognitive Therapy: A Meeting of Minds*. New York, NY: Peter Lang.
- Velimirovic, N. (2008). *The Prologue of Ohrid: Lives of Saints, Hymns, Reflections and Homilies for Every Day of the Year* (T. T. Tepsic, trans.). Alhambra, CA: Serbian Orthodox Diocese of Western America.
- Vlachos, H. (1994). *Orthodox psychotherapy: (the science of the fathers)*. Leviaia, Greece: Birth of the Theotokos Monastery.
- Watson, P. (2009, February 6). Indonesians ignore religious edicts against smoking, yoga. *Los Angeles Times*. Retrieved from <http://articles.latimes.com/2009/feb/06/world/fg-indonesia-fatwa6>
- Weber, M. (2009). *From Max Weber: Essays in Sociology* (H. H. Gerth & C. W. Mills, trans.). New York, NY: Routledge.
- Wetzel, M. S., Eisenberg, D. M., & Kaptchuk, T. J. (1998). Courses involving complementary and alternative medicine at US medical schools. *JAMA*, 280(9), 784-787. doi:10.1001/jama.280.9.784
- Williams, J. M. G., & Kabat-Zinn, J. (2011). Mindfulness: diverse perspectives on its meaning, origins, and multiple applications at the intersection of science and dharma. *Contemporary Buddhism*, 12(01), 1-18. doi:10.1080/14639947.2011.564811
- Xue, C. C. (2008). Traditional, complementary and alternative medicine: policy and public health perspectives. *Bulletin of the World Health Organization*, 86(1), 77-78. doi:10.2471/BLT.07.046458