



# Meditation, Mindfulness, and Prayer: Three Spiritual Modalities Utilized for Healing

Jeff Levin<sup>1,2</sup>

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## Abstract

This paper describes three spiritual practices utilized for healing. These modalities—meditation, mindfulness, and prayer—share a spiritual foundation and appear to operate, in part, through mind–body connections that can be accessed to ameliorate physical and psychological symptoms and to promote health. For each modality, this paper discusses pertinent conceptual issues, summarizes empirical evidence suggestive of a role in healing, and outlines theoretical support for such a relationship. Also discussed is a fourth modality, energy healing, and how it might be studied, as well as why further investigation of spiritual healing is merited and a worthwhile topic for medical research.

**Keywords** Healing · Meditation · Mindfulness · Prayer · Spiritual healing

## Introduction

The phrase “spiritual healing” covers considerable ground and throughout the scholarly literature has been attributed a variety of often contested meanings (Benor, 2001). Definitions proffered by scholars, clinicians, and commentators from various religious perspectives and scientific fields are all over the map. A small sample of these includes the following:

Spiritual healing is defined as a systematic, purposeful intervention by one or more persons aiming to help another living being by means of focused intention, hand contact, or passes to improve their condition. Spiritual heal-

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✉ Jeff Levin  
jeff\_levin@baylor.edu

<sup>1</sup> Institute for Studies of Religion and Medical Humanities Program, Baylor University, Waco, TX, USA

<sup>2</sup> Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC, USA

ing is brought about without the use of conventional energetic, mechanical, or chemical interventions (Benor, 2002, p. 249).

[S]piritual healing is predominantly an activity of the mind as it impinges on matter (Aldridge, 1993, p. 5).

Spiritual healers believe they can influence the course of an illness by “spiritual” or nonphysical means. Healing can be offered in person or at a distance, and does not require religious acceptance or belief by either party (Cohen, 1989, p. 1056).

Mental healing is the practice of treating illness without a known physical curative agent. It is also known as psychic healing, spiritual healing, non-medical healing, shamanic healing, prayer healing, miracle healing, laying on of hands, paranormal healing, and magnetizing, although these terms are not interchangeable (Solfvin, 1984, p. 31).

A spiritual healer’s focused intent is that his or her consciousness may be used as an expression of nonlocal Infinite Mind, which some know as God. No thoughts of personal profit or failure on the part of the healer, and caring intent with nonattachment to the outcome, are the essential components of spiritual healing (Targ & Katra, 1998, p. 143).

Spiritual healing in Western culture is a symbolic form of healing, its practice found in groups with wide variations in religious ideologies (Glik, 1990, p. 153).

Spiritual healing is . . . an umbrella term to refer to often very different forms of healing. In this general sense, terms are often used such as spiritual or energetic healing, therapeutic touch, etc. (Koch & Binder, 2013, p. 2).

. . . at the base of the spiritual healing process is a recognition of personal sinfulness, repentance, forgiveness, and deliverance, which seems to facilitate an increase in divine intimacy (Poloma, 1998, p. 60).

As with the word “healing” in general (Levin, 2017), spiritual healing can connote an intervention (i.e., performing one of numerous techniques), an outcome (i.e., the successful resolution of some health challenge through spiritual means), or the spiritual components of the salutogenic (healing) process itself. Sometimes, more than one of these usages is combined in a single definition, which renders things quite confusing to discern. This jumbled type of reference to healing has been strongly criticized:

In some unfortunate pieces of writing, healing is all three of these things at the same time. Healing is something practiced by healers that initiates a healing process so that we may obtain healing. All things to all people, healing, so used, as a construct for systematic research is thus close to worthless (Levin, 2008, p. 302).

Also confusing, as noted in the Solfvin (1984) definition, is use of the phrase “spiritual healing” interchangeably with other phenomena that may or may not be spiritual healing, or anything close to it, but then that, too, is dependent upon what definitions one prefers. This issue arises throughout the scholarly and popular literature on this subject. Another twist: some excellent and well known works on spiritual healing, even under that name, do not include anywhere in the text a working definition of the concept (e.g., Kunz, 1995). Perhaps it is believed, tacitly, that the identity of “spiritual healing” is self-evident. Finally, and thankfully, there are excellent summaries that document the wide diversity of conceptualizations of spiritual healing even within respective faith traditions, such as Christianity (e.g., Bourne & Watts, 2011).

Across all of these usages and examples, and many others not referenced here, two broad categories of definitions can be differentiated. First, spiritual healing can imply healing—or curing or restoring—of the human spirit, as opposed to healing of the body (physical healing) or healing of the mind or emotions (mental or emotional healing). The word “spiritual” here refers to the target of the healing intervention—the human spirit or soul (e.g., Hufford & Bucklin, 2006). Second, alternatively, spiritual healing can imply accessing or otherwise engaging things of a spiritual nature for purposes of healing the body, mind, or emotions. Here, the word “spiritual” refers to the type of intervention being used—that is, doing something spiritual, perhaps which even invokes the supernatural, as opposed to something medical, physical, or psychotherapeutic (e.g., Sundblom et al., 1994). Both connotations are considered by respective sources to denote spiritual healing, which may be baffling when first encountering this literature. As with the word “healing,” the meaning of the phrase “spiritual healing” varies from source to source without any consensus in usage. For the present paper, the second category is the focus—use of spiritual modalities for purposes of healing a human body or psyche; in other words, spiritual healing used as a treatment in a medical or other therapeutic context.

The question arises: what, specifically, are some of the most recognizable spiritually-defined or -infused modalities that are accessed or utilized by individuals in order to promote or induce healing? Three spiritual healing modalities to be considered here are based on or grounded in meditation, mindfulness, and prayer. One may “do” these things—that is, take these approaches—for purposes of self-healing, as well as for self-actualization or spiritual growth, and there is also considerable, if still contested, empirical evidence that each may be capable of engendering or even conveying healing to others in certain circumstances.

The idea that spiritual modalities are health-impacting or promotive of healing is not as disparaged or disputed as it once was (Steinhorn et al., 2017), at least within certain medical specialties (Curlin et al., 2007), but it is still not normatively accepted much less celebrated within Western medicine (Leskowitz, 1993). This is understandable, as, despite empirical evidence and proposed physiological mechanisms for these modalities’ impact on the healing process, for some more secular and biomedically oriented Western clinicians and scientists this topic may still seem sketchy and smack of fringe science (e.g., Atwood, 2001). This is an old story in medicine, with spiritual healing and anything else outside the narrowly accepted boundaries of medical practice labeled as “irregular” and “quackery” and

its practitioners denounced as “parasites” (Rolleston, 1927, p. 501). Sociologically speaking, fringe or marginal are probably still accurate descriptors when it comes to these modalities in contemporary Western medicine (McGuire, 1988), but the disparaging tone is unmerited as there is actually more evidence here than many may realize and has been for quite a while (Levin, 2008; Schlitz, 2005). But even for those more favorably inclined, or at least neutral, concern has been expressed over spiritual healing, at least in the U.S., being largely unregulated and lacking in uniform standards (Cohen, 2003).

In this paper, these three modalities are considered here together because, while conceptually distinct, they are close relations: each would seem to invoke or involve mind–body connections as well as something more—call it spirit, higher mind, human consciousness, the divine—and to suggest that these things not only matter for healing and well-being but are appropriate and reputable foci for medical research. For each of these three modalities—meditation, mindfulness, and prayer—this paper will discuss pertinent conceptual issues, summarize empirical evidence suggestive of a role in healing, and describe theoretical support for such a relationship. Also discussed will be implications for medical practice and research.

## Conceptual Issues

Before proceeding further, a few terms ought to be defined. This is an important conceptual task, because it will put parameters around the subsequent summary of empirical evidence and the description of existing theoretical underpinnings for spiritual healing.

To take a step back, we first should ask, “What is healing?” As noted, the word “healing” is used, variously, to denote an intervention, an outcome, and a physiological process. The latter includes conventional biomedical usages, such as the healing of physical wounds through a sequence of cellular and molecular processes (Velnar et al., 2009), but for the present paper the focus is on healing as an intervention, a therapeutic modality. The word “healing” derives from *hǣlan*, Anglo-Saxon for “to be or to become whole” (Quinn, 2019, p. 41), and is distinct from curing, which may occur (but does not have to) alongside healing in its usage as healing-as-outcome. Healing, in this context, is taken as something more, or deeper, than a mere cure. As far as healing-as-intervention, there are myriad modalities and techniques and these can effect change “on many levels, including body, emotions, mind, relationships with other people and the environment, and spirit” (Benor quoted in Mason, 2002, p. 130).

## Meditation

The concept of meditation, as is true of healing, has been defined in many ways. The word is a derivation of the Latin *meditari*, which means “deep, continued reflection, a concentrated dwelling in thought” (Underwood, 1987, p. 325). Different approaches to meditation are found in respective religions throughout the world,

including in Hinduism, Buddhism, Judaism, Christianity, and Islam, as well as in numerous esoteric traditions and as an adjunct therapy in secular psychotherapeutic schools (Goleman, 1988; Underwood, 1987). One of the applications or downstream aftereffects of meditation is as a facilitator of healing and, more generally, as a personal health intervention (Newcombe, 2021). Various traditions or schools of meditative practice have been found to be effective as medical treatment, including Vipassana, Transcendental Meditation, Hatha Yoga, Sahaja Yoga, Kundalini Yoga, Tibetan Yoga, Shavasana Yoga, and Relaxation Response (Arias et al., 2006).

As to whether meditation or an ongoing meditative practice can actually *heal*, and not just promote health or wellness, prevent illness or lower risk of disease, or enhance general well-being, is covered later in this paper. As a conceptual promissory note, so to speak, this possibility is consistent with how respective meditative traditions describe the uses of spiritually-contexted contemplative practice. There is precedent then for the act or practice of meditation being used as a means to recover, restore, and/or renew. This is evidenced in traditions as diverse as the exercises taught by the Jewish kabbalists (Kaplan, 1985), the *siddhis* (or “supernormal powers”) spoken of in the yogic system of Patañjali (Woods, 1914), and the practices utilized in *Vajrayāna* Buddhism (Amihai & Kozhevnikov, 2014).

## Mindfulness

For mindfulness, by contrast, there are more agreed upon definitional boundaries, at least among psychologists, psychiatrists, and secular scholars (see Brown et al., 2015). Here, it implies something akin to “conscious awareness” (p. 2) or “receptive attentiveness” (p. 3). Understandings of mindfulness as a religious concept, originating in Buddhism, are quite different, and are distinct across particular Buddhist branches (see Gethin, 2015), where it denotes both a state of consciousness and a practice to attain that state. In the latter context, it could be considered a subtype of meditation (Oman, 2021), emerging as it did from Buddhism’s longstanding contemplative tradition (Kabat-Zinn, 2003; Williams & Kabat-Zinn, 2011). Besides being a pathway to equanimity and nonattachment and spirituality, mindfulness is also a potential means of or vector for attaining wellness, well-being, and healing. This includes impacts on oneself and even on others, perhaps by way of its engendering a state of consciousness entailing compassionate intentions which, in turn, may exhibit salutary transpersonal characteristics and thus an “emotional connection [that] instantiates a healing relationship” (Schmidt, 2004, p. S7).

While mindfulness may have emerged, controversially, in the West as a Buddhist-contexted religious concept (Sharf, 2015), it has been valuably applied in secular clinical settings, as well, for decades (Kabat-Zinn, 1982). Mindfulness has been “translated” for use in contemporary psychology and medicine, including within psychotherapeutic and self-help settings, and years of evaluative research point to successful applications in addressing psychological symptoms and psychiatric disorders (Khoury et al., 2013) as well as in engendering psychological well-being (Chu & Mak, 2020) and spirituality (Landau & Jones, 2021). Explicitly Buddhist-based mindfulness practice has been used successfully with patients and clients

from across the spectrum of faith and wisdom traditions and spiritual paths (e.g., Niculescu, 2019), including among those who may presume it to be a secular intervention. This approach, however, has been criticized both as a possible misapplication of Buddhist principles and practices (Vörös, 2016) and also as possibly raising ethical issues since mindfulness “has become a therapy, a mass movement, and a global industry” (Stanley et al., 2018, p. vii). On the other hand, the practices themselves have proven helpful, as noted, regardless of one’s faith or worldview. Yet a more “culturally-sensitive person-centered” approach (Koenig, 2023, p. 1886) tailoring these practices to the specific beliefs of non-Buddhists may prove even more effective, and also serve to create a more religiously consonant experience for patients or clients.

## Prayer

As a public or private religious behavior, prayer may be the most ubiquitous expression of religiousness that exists (Sharp & Carr, 2017). Like meditation, there are many definitions and many expressions of prayer, but a fundamental definition is “human communication with divine and spiritual entities” (Gill, 1987, p. 489). Across the world’s religious, various types or modes of prayer can be differentiated, although they are not intrinsically discrete but may overlap. These include prayers of petition, confession, intercession, praise and thanksgiving, and adoration, as well as “unitative prayer,” seeking mystical union or ecstasy (Doniger, 1999, pp. 866–867). Among Jews, for example, prayer consists of “two essential elements”: praise and thanksgiving, on the one hand, and supplication and petition on the other (Berlin, 2011, p. 576). The latter is utilized in various faith traditions to petition God for healing for one’s self and for others. This may be through local (i.e., proximal) or nonlocal (i.e., absent or distant) prayer, respectively—that is, for people in one’s presence or oneself or for those separated from the prayer by a distance. Examples of applications to healing include Roman Catholic liturgical or sacramental prayer (Kasza, 2007) and the Jewish *mi shebeirach* blessing (Nulman, 1993, pp. 243–245).

In the spiritual healing literature within integrative medicine and New Age circles, the word “prayer” is often used interchangeably with other, disparate concepts: psychic healing, mental healing, energy healing, and more (e.g., Targ, 1997). Evidence for one is typically used as evidence for the others. One sometimes hears it said that these are “all the same thing.” Perhaps they are all of a piece, in a limited sense—they each involve setting an intention for purposes of healing—but claiming equivalency is not a conceptually useful approach in a research context, as it sows much confusion. To put it even more bluntly:

Petitioning God or Jesus for another person’s healing, using one’s hands to transmit subtle energies to a client’s body or biofield, sending loving intentions by way of meditation or psychic means, performing the sacrament of anointing with oil, praying the *mi shebeirach* with a *minyan* or congregation, emitting external *qi* to a subject halfway around the world or somewhere in the future or past—surely these are not “all the same thing,” as some would say. . . [T]hese modalities of spiritual healing are dramatically different from each

other just on the surface, in terms of what is being done, much less in terms of underlying motives or beliefs or spiritual worldviews. It is difficult to comprehend how this point could be missed (Levin, 2009, p. 137).

Yet it is missed throughout the integrative medicine literature, and often so. Research demands more conceptual precision, however, so that results can be interpreted sensibly and attribution of any observed effects can rightly be made, in this instance to praying (to God) as opposed to some other phenomenon (e.g., psychic healing, Reiki, radiating “heart energy,” etc.). Not only is this a conceptual error, but this false equivalency may be considered religiously offensive or even blasphemous to some traditional believers within established faith traditions.

## Empirical Evidence

Far more published research has been conducted on these three modalities than most researchers or clinicians may be aware. Indeed, the descriptor “far more” may be something of an understatement. The number of citations in the National Library of Medicine’s PubMed search engine, at the time of this writing, bears this out.

A search on “meditation” yields over 10,000 citations, over 1,800 of which are reviews, systematic reviews, or meta-analyses. A search on “mindfulness” produces over 30,000 citations, over 5,000 of which are one of the three types of reviews. For prayer, the number of citations exceeds 81,000, with over 5,000 being some type of review. By contrast, searching on “spiritual healing” OR “spiritual healer” leads to just over 400 citations, about 60 of which are reviews. If one were to use the latter search as a gauge of the scope of scholarly writing on this subject, then one would be grossly underestimating how much work has been done. This perhaps reflects ongoing discomfort within medicine over using the phrase “spiritual healing” or broaching the subject of spiritual healers. Scholarly writing on particular specific healing modalities may be less off-putting, and little or no mention may even be made of their putative “spiritual” content. Accordingly, searching on each respective modality yields a volume of research and writing that is unexpectedly enormous—and note that this comment is being made by someone who is often categorized as a so-called expert in the scope of this work (which, to be fair, is not really true). It is hard to imagine that there could be a single researcher in the world who has read all or even most of these publications, or even just the abstracts.

## Meditation

The practice of meditation, in general, was once controversial in psychology and believed to be physiologically inert (Holmes, 1984), but by the 1990s the evidence for positive physiological and psychophysiological effects became overwhelming (Murphy & Donovan, 1997; Oman, 2021). The *dhyāna*, or meditative stage, of the eight-limbed system of *Rāja yoga*, for example, is one particular form of meditation that has been well studied for decades. It is part of a large published literature of health-related studies of yoga, including the meditative aspects, with comprehensive

English-language summaries (beginning with Funderburk, 1977) and methodological critiques of existing yoga research (Elwy et al., 2014; Park et al., 2014). Numerous reviews and meta-analyses have reported statistically significant, positive, experimental effects of meditative practice and meditative retreat experiences, for example, on a variety of outcomes, including depression, anxiety, and quality of life (Khoury et al., 2017).

## Mindfulness

In recent years, a field of empirical health-related research on mindfulness has emerged (see Levin, 2023; Oman, 2023). This includes trials investigating the efficacy of mindfulness-related interventions in promoting health among patients and community populations (Creswell, 2017). But is there also evidence that mindfulness practice can actually heal-cure-restore people with medical or psychiatric diagnoses or symptoms? According to research, the answer appears to be a guarded yes. Research studies and reviews show that mindfulness-based interventions exhibit effects of various levels of efficacy on physical and psychological outcomes including cancer, mood disorders, assorted biomarkers, chronic and acute pain, low back pain, fibromyalgia, rheumatoid arthritis, cardiovascular disorders, diabetes, HIV/AIDS, and the postsurgical course of organ transplantation (Carlson, 2012). This is actually an abbreviated list of outcomes; a more detailed and up-to-date summary can be found elsewhere (Shapiro et al., 2024). Despite these findings, however, methodological limitations present in many of these studies require a cautious approach in drawing more specific conclusions (Chiesa & Serretti, 2010).

## Prayer

Empirical evidence supporting a health impact of prayer is quite substantial. But it is important to distinguish between (a) studies of personal prayer as a behavior associated with health or well-being in general populations (Levin, 2004), and (b) actual randomized controlled trials (RCTs) of prayer for the healing of sick people, including those at a distance from the blinded individuals doing the praying (Dossey, 1993). The former is garden-variety social, behavioral, or epidemiologic research and not particularly controversial. The latter is an ongoing source of contention among skeptics and critics who view these studies as indicative of an “unholy alliance” between medicine and religion (e.g., Sloan, 2006).

Regarding the possibility of a positive effect of prayer on distant healing, so much research exists, including experimental studies and clinical trials, that multiple reviews and meta-analyses have been published on the subject (e.g., Astin et al., 2000), as well as reviews that summarize these published reviews (e.g., Radin et al., 2015). Throughout these summaries, specific results vary, but generally speaking something salutogenic is found—empirical evidence supports a distant healing effect of prayer, although moreso in laboratory than in clinical settings (Radin et al., 2015). As one might imagine, this research has attracted considerable controversy, including ethical concerns (e.g., Turner, 2006), ever since publication of the first

RCT of distant intercessory prayer that came to widespread attention (Byrd, 1988). There is too much detail to unpack here, but thoughtful, evenhanded summaries of these critiques, along with responses to the critiques, have been published over the years (e.g., Dossey & Hufford, 2005).

Besides experimental studies of prayer-for-healing, there has also been a small number of health services research studies mapping utilization rates in the U.S. for spiritual healing in general (e.g., Levin et al., 2011) and for healing prayer (Levin, 2016) since about 1990. Many of these studies report findings from large, representative, national population surveys (e.g., Eisenberg et al., 1993, 1998), and prevalence rates vary considerably depending upon what specifically is being asked about (i.e., intercessory prayer, laying on of hands, visits to psychic healers, faith healing, unspecified “spiritual healing,” and so on) and whether respondents are questioned about lifetime, past year, or current use. According to these studies, past-year self-reported use of “spiritual healers” (however that may be interpreted) falls somewhere between about 4% and 14% of the adult population with use of healing prayer at between a quarter and a third of the population, in both instances with wide variation across studies (see Levin et al., 2011). Note, also, that these numbers are by now somewhat dated.

## Theoretical Support

The role of theory in observational and other human studies is to guide the identification of research questions, the formulation of hypotheses, and the interpretation and application of empirical results. For spiritual healing in general, and for healing-directed meditation, mindfulness, and prayer in particular, useful theoretical models exist which attempt to make sense of positive findings. That is, they provide explanations, whether validated through research or simply hypothetical, which demonstrate that such observed effects are at least consistent with what is presently known or believed about the physiology and psychophysiology of how people heal from physical and/or psychological maladies. This is no guarantee, of course, that said theories are true or right, but they are an indicator that investigators have given some attention to the “how” and “why” of this subject.

## Meditation

For decades, theories, concepts, and mechanisms have been proposed by psychologists and others in order to explain the putative effects of meditation on the physical body, on the amelioration of pathological states, and on the healing or curing of diseases or resolution of symptomatology, physical and psychological. Since the 1970s, theories from the field of mind–body medicine have advanced numerous psychophysiological understandings of how it is that meditation may be salutogenic, far more than can be comprehensively unpacked here. Examples include self-regulation through autogenic training (Green et al., 1979), stress reduction through the relaxation response (Benson et al., 1974), attentional shifts that initiate changes in cortical

dynamics (Kerr et al., 2007), psychodynamic individuation and transcendence of ego (Odajnyk, 1998), psychoneuroimmunological regulation of cognitive and emotional behavior (Magan & Yadav, 2022), and transcendent experience engendered by trait absorption (Berkovich-Ohana & Glicksohn, 2017). It is beyond the scope of this paper to evaluate these theories and concepts, but the takeaway point is simply that such theorizing has been ongoing for decades and research into the “neurobiological basis” of a putative healing effect of meditation (Perroud, 2009, pp. 50–52) has become a fertile area of investigation.

## Mindfulness

Perhaps because of its widespread adoption in medical and psychotherapeutic settings (Didonna, 2010), possible linkages between mindfulness practice and healing, broadly defined, have been subject to substantial theorizing. This work has been informed by the observations of clinicians in various professions—including medicine, nursing, social work, health education, and clinical psychology—often with personal experience with or exposure to Buddhist meditation. Current explanations for a therapeutic effect of mindfulness are in large part grounded in neurobiological mechanisms and pathways and much of this theoretical work has been validated empirically (see Treadway & Lazar, 2010). These include both structural effects on the brain and functional effects on neuronal activity (Esch, 2014), including, respectively, (a) increased cortical thickness in areas controlling attention, interoception, sensory processing, and autoregulation, and (b) synchronized and coherent brainwaves, increased higher-order cognitive processing, and greater body awareness and emotion regulation. Such structural and functional changes are believed, in turn, to affect health through a variety of cell-mediated mechanisms, including reductions in inflammation, oxidative stress, mitochondrial dysfunction, and telomere shortening, which reduces pathophysiology at a molecular level (Boutrup et al., 2019). Accordingly, applications to contemporary medical and psychiatric practice have been proposed (Koenig, 2024).

## Prayer

Theories of distant prayer as a potential agent in healing are extensive. The question of “how prayer heals” (Levin, 1996) has challenged the greatest minds in philosophy, theology, physics, biology, psychology, nursing, medicine, and other fields for centuries. Since appearance of the first prayer-healing studies, all sorts of novel concepts have been broached to make sense of this possibility, early examples including “paraphysical,” “energetic,” and “magnetic” mechanisms (Aldridge, 1993); “extended mind” (Sheldrake, 1994); “psi” (Tart, 1986); “consciousness” (Krippner & Villodo, 1986); a latent “technology” dormant in our “unavailable unconsciousness” (Abraham, 1992); and more. Possibilities even further afield have been proposed, based on quantum theories (Radin, 2006); interconnections among *chakras*, the “astral body,” and the peripheral nervous system (Gerber, 1988); and “pranic,”

“etheric,” and other “bioplasmic” forces purportedly accessed by psychics and “metaphysical” healers (Meek, 1977).

These and other possible explanations for a healing effect of prayer can be classified along a 2×2 table which differentiates whether the transmission of healing originates from within or outside nature (termed naturalistic vs. supernatural healing) and whether healing requires the breaching or transcending of conventional understandings of three-dimensional space–time (termed local vs. nonlocal healing) (Levin, 1996). While many such theories and ideas are admittedly quite unusual, most are also seemingly naturalistic in the sense that they may be understandable in terms of physical properties of the natural universe, even if such properties seem inconsistent with current mainstream scientific understandings of space and time and of human consciousness, and are not reliant upon an explanation based on “God did it.” On the other hand, many devout religious believers (the present author included) also acknowledge the possibility that healing can occur through divine intervention via supernatural means, even if an explanation for this is not amenable to deconstruction into observable scientific mechanisms.

In sum, there is lots of theoretical support for meditation, mindfulness, and prayer as agents of spiritual healing, no matter how much or how little uncontested empirical evidence exists at present. This is also so no matter how unconventional some of these theoretical proposals may appear in the eyes of many mainstream scientists and clinicians. The key point is that such theories and explanations exist and have been put forth. Particular studies may still be called into question, and some proposed theories may be a bit “far out” for some people’s tastes, but the hypothetical possibility of spiritual healing is well accounted for by theory. The research literature on these modalities, no matter the perceived fringeness of some theoretical understandings of observed effects, is largely theory-driven and not a literature of mostly exploratory studies and random correlations as might be assumed.

## Implications for Medical Practice and Research

Aside from any purported supernatural mechanisms of action which, by definition, would seem not to be amenable to “proving” through naturalistic research methods, such as experimental trials or observational studies, we are coming to learn a lot about human consciousness and its apparently transpersonal and nonlocal characteristics (Dossey, 1993). These insights may go a long way toward making sense of salutogenic research findings on spiritual healing modalities. Years ago this may have seemed like a topic for psi research and perhaps too “woo woo” for serious biomedical science, but that is not so anymore, even if many Western clinicians and biomedical scientists remain unfamiliar with this work.

### “Energy Healing”: A Fourth Modality

One final note: a fourth modality of spiritual-based healing modalities, or rather category of modalities, is what is widely referred to as energy healing, the domain

of “biofields” (Rubik, 2015), “bioenergy” (Kiang et al., 2002), “bioelectromagnetics and subtle energy medicine” (Rosch, 2009), and similar concepts. This is not a primary focus of this paper, by intention, for a few reasons: (a) its conceptual map is still very fuzzy (Levin, 2011); (b) the evidence for healing through empirical research is sparse and far more contested than for the other modalities (Jonas & Crawford, 2003b), including accusations of fraudulent studies (e.g., Wirth, 1990); and (c) the theoretical basis for its putative effects is far from attaining consensus (Jonas & Crawford, 2003a), notwithstanding some detailed theoretical reviews (e.g., Ross, 2024) and book-length treatments (e.g., Oschman, 2016).

Conceptually, for example, how does one categorize the practice of laying on of hands? Is it an expression of prayer, or is it a vehicle for energy healing? As discussed in the literature on healing, when laying on of hands is used by a traditionally religious person it is typically categorized as prayer; when used by a follower of New Age beliefs it is generally considered energy healing, often disparagingly, even though the technique (e.g., hand movements) may be quite similar. Theoretically, moreover, there is not a consensus among scholars and scientists, including those otherwise sympathetic to the idea, that energy healing even has anything to do with “energy” in any conventional sense of the word (Dossey, 1992), such as defined by physicists (Lopes Coelho, 2024).

No matter, despite this conceptual and theoretical confusion, energy healing bears at least some mention here because evidence from health services research suggests that the self-reported utilization of energy healers of various types may be somewhat more than is generally believed, although its prevalence has been underexplored compared to the other phenomena discussed above (Frass et al., 2012). Also, while contested, as noted, findings from a few in vivo (Mayor et al., 2011) and in vitro (Benor, 2001; Sweet, 2004) studies are suggestive of salutogenic effects in some settings. Without going deeper down a rabbit hole in the present paper, suffice it to say that it would be worthwhile for more systematic research to focus on this specific subject, even if it lies at the fringes of spiritual healing, itself already such a fringe topic, since so much of what is believed about energy healing and its effects remains disputed and far from concrete. Also, for what it may be worth, this is such a fascinating, if perplexing, subject.

Several possible questions to guide research on energy healing might include the following. Given the likelihood (or unlikelihood) of sufficient funding for such a seemingly marginal topic, in light of the stigma attached to this subject among academic scientists, pursuing any of these possibilities may present challenges, so this could be considered a map for future investigators with thick enough skin to be willing to press through existing barriers:

*What is the prevalence of the utilization of energy healers, in the U.S. and globally, over one’s lifetime, over the past year, and presently? This would require a large population-based healthcare survey with a representative, probability-based sampling frame.*

*Who uses energy healers—that is, what are the sociodemographic characteristics of those who seek healing from such healers—and what are the reasons for seeking care (e.g., recovery from illness, to treat pain, to resolve emotional*

*challenges, etc.)?* This would also require a population-based survey, but of the kind designed by medical sociologists and social researchers.

*Is energy healing effective for addressing and resolving medical or psychiatric diagnoses?* This would require a clinical trial or medical outcomes study using some type of experimental or quasi-experimental design, and could be implemented in either a medical care or community-based setting.

*What are the “mechanisms” of action by which the work of energy healers produces physiological or psychophysiological changes?* This would require bench studies, of myriad types and engaging any of various physiological systems, whether immunological, endocrinological, or the interface of these with the nervous, circulatory, lymphatic, or other systems.

*Who are energy healers (as far as their personal characteristics, training, beliefs, and practices) and what are the various types of energy healing systems that exist?* This would require something of an ethnographic or sociohistorical approach, and is one type of research that might be most feasible as its cost would be minimal compared to the expensive studies outlined above.

Again, not to belabor the point, but, personally speaking, the present author would much rather see more programmatic and systematic research conducted on meditation and mindfulness, as their applications within contemporary medicine and psychology are already welcomed in many quarters. Also, their putative mechanisms of action do not seem to challenge or violate current consensus physical understandings of space and time nor to provoke the kind of negative and even sarcastic responses that are encountered by those presenting empirical evidence supportive of energy healing (see, e.g., Hall, 2008). To be clear, this is not the author's own perspective; in fact, he has a book under contract at present which seeks to expand on a taxonomy of energy healers along the lines of the final study question noted above. But, in all honesty, notwithstanding how interesting and provocative energy healing research may prove to be, there may be more fruitful topics for clinical and basic biomedical research into spiritual healing, and mindfulness, especially, may be better suited.

## Conclusion

When clinicians, researchers, media, and laypeople continue to make reference to the subject of spiritual healing, there is rarely a consistent usage across such reports and thus important variations are often glossed over. The present paper has sought to identify a few threads for discussion in order to encourage a deeper and more precise engagement of this topic. Like many concepts that appear in clinical and research discourse in medicine pertaining to the possibility of spiritual or “alternative” sources of healing, pronouncements are typically made that are quite strident (whether pro or con) yet conceptually imprecise and not in tune with the most recent empirical evidence. This is unfortunate, as medicine and the healing arts advance

through consideration of phenomena that at one time may have seemed, on the surface, to be untenable or outside the pale or perhaps impossible. This is an understandable response: medicine, as any profession, is entitled to police its borders from cranks and quackery. But, at the same time, often there may be more evidence for something new than the professions' gatekeepers realize. In the case of spiritual healing, this appears to be so.

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*called Yoga-bhāṣya, attributed to Veda-Vyāsa and the explanation. called Tattva-vāicārādī, of Vāchaspati-Miçra. Delhi, India: Motilal Banaradsidass.*

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**Jeff Levin** Ph.D., M.P.H., holds a distinguished chair at Baylor University, where he is University Professor of Epidemiology and Population Health, Professor of Medical Humanities, and Director of the Program on Religion and Population Health at the Institute for Studies of Religion. He also serves as Adjunct Professor of Psychiatry and Behavioral Sciences at Duke University School of Medicine, and as an Affiliated Member of the Center for Medical Ethics and Health Policy at Baylor College of Medicine. He is an elected fellow of the American College of Epidemiology, the Gerontological Society of America, and the International Society for Science and Religion.