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Prayer, Meditation, and Spirituality in Rehabilitation

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Throughout the centuries, prayer and meditation have been used to alleviate human suffering. Both have had a convergent path with the field of medicine until relatively recently in human history. In indigenous cultures, such as those of the Native Americans, healers have a high degree of spiritual development. In Traditional Chinese Medicine and Ayurveda (the traditional medicine of India), consideration of the soul or spirit is an integral part of the evaluation and treatment of the patient. Since the Darwinian era, however, science and spirituality have had an uncomfortable relationship at best (1).

The recent interest in complementary and alternative medicine has reintroduced the importance and interrelatedness of spirituality and medicine. Spirituality and religion may help patients, and those who care for them, to cope with illness as well as other stressful events in life (2,3). Patients undergoing rehabilitation are often in physical, emotional, and spiritual crises. The issues of pain, mourning the loss of a body part or level of function, and questions about the value of life in a new or difficult set of circumstances are situations commonly encountered by persons in this setting. Psychiatrists and other rehabilitation professionals are trained to deal with physical and emotional crises. However, dealing with the spiritual aspects of an illness are often left to patients and their loved ones, at a time when they may be least prepared to handle them.

DEFINITIONS

What are prayer, meditation, and spirituality? What do they have to do with the practice of rehabilitation medicine? Prayer and meditation are definable entities, and each has been subjected to scientific inquiry. However, spirituality is a concept that is unique to each individual, and one that has only recently been introduced into medical literature.

Prayer and Meditation

Webster's defines prayer as "an approach to a deity in word or thought." The word *prayer* comes from the Latin *precarius*, or "obtained by entreaty" (4). In his book *Healing Words*, Larry Dossey, an international authority on the therapeutic value of prayer, describes various types of prayer: prayers of petition, confession, lamentation, invocation, adoration, and thanksgiving (5). Clinical studies on prayer involve intercessory prayer, or a plea for Divine intervention for a desired outcome. Meditation may be viewed as a technique of focused attention in which the individual concentrates awareness on a single object, sound, thought, prayer, motion, or on the breath. The objective is to minimize outside stimuli and thus be open to inner awareness.

Prayer and meditation have been referred to as two sides of the same coin: prayer is often thought of as active communication with the Divine, and meditation as listening. However, there is a great deal of overlap between the two. Receptive prayer, in which the person praying quiets the mind to receive inspiration is, in practice, very similar to meditation. One type of meditation is the repetition of a *mantra*, or phrase, to empty the mind. This resembles the custom in some religions of the repetition of a certain prayer to attain a state of stillness, as Catholics do when saying a rosary. Although prayer and meditation are interwoven, they are considered separately below in the section on clinical investigation.

Spirituality

Although prayer and meditation are practices as defined above, spirituality is a more nebulous concept. It is frequently, but not necessarily, associated with religion. The Oxford English Dictionary defines spirituality as: "Spiritual quality; what belongs to the Church or to an ecclesiastic as such" (6). Such a definition recognizes the association of spirituality with religion. However, although every religion can encompass spirituality, the two words are not synonymous or interchangeable. Spirituality may be broadly defined as one's connection to some type of universal force, which may be referred to as God, the Divine, nature, the Cosmos, a Higher Power, or any other name for a unifying force that guides and directs. In the words of J. Hiatt, a psychiatrist: "Spirit refers to that noncorporeal and nonmental dimension of the person that is the source of unity and meaning, and spirituality refers to the concepts, attitudes, and behaviors that derive from one's experience of that dimension" (7). Spiritual practices include prayer and meditation, but, according to Zen Buddhist Jon Kabat-Zinn, any act may be a spiritual act, depending on one's intent and attitude (8).

Yet another way to define spirituality is within the functional context of the body-mind-spirit continuum that is part of every human being. Just as we define dysfunction at various levels of human capacity: impairment (organ level), disability (performance level), and handicap (societal level), we define spirituality as that level of function of every individual that is neither body nor mind, separate yet connected to the other two. At a physical level, we feel temperature, pressure, proprioception, and nociception. At a mental level one can also perceive satisfaction, fear, and anxi-

ety. Joy, love, wholeness, connectedness, and great contentment are all feelings that are experienced on the spiritual level. Although these feelings do not originate at a physical or a mental level, they do filter through and impact physical and mental functioning. At this spiritual level, feelings can also include negative emotions, such as negative intuition that things are “not right,” or pain that is not reflected on the physical level, such as a spiritual or existential crisis.

A discussion of spirituality in medicine may be associated with discomfort, because of a variety of reasons: differing religious views, fear of invading what is often a private subject, and the traditional separation of spirit and science. In the end, each person has a unique definition of and comfort level with their own spirituality, which is an outgrowth of personal experience and practice.

STUDIES REGARDING THE PRACTICE OF PRAYER AND MEDITATION IN THE CLINICAL SETTING

Research efforts concerning prayer in the clinical setting take the form of studies on professional and patient attitudes on prayer, as well as studies on medical efficacy.

Survey Studies on the Attitudes of Healthcare Professionals

A 1999 survey of family physicians inquired about the role of religious practice in the physician–patient relationship. “Religious practice” was defined as attendance at religious or spiritual services, as well as private religious or spiritual practice. The terms “religious” and “spiritual” were used interchangeably in this study. Nearly 70 percent of the 438 respondents believed that involvement in religious activities had a positive effect on mental health and 42 percent believed that it promoted physical health. A majority (62 percent) felt that their older patients would not like their physician to pray with them during severe illness, but that if a patient indicated directly or indirectly that he would like his spiritual needs addressed, it would be appropriate to do so (9). A study of 142 Emergency Department staff members, including physicians, nurses, and other healthcare professionals, revealed that spiritual practices (defined as prayer and group support) were ranked as third in terms of frequency of recommended CAM therapies, yet meditation, considered separately, ranked thirteenth. Recommendations tended to reflect the professionals’ own habits (10). In a study of oncology nurses, a high percentage (81 percent) were found to pray *for* their patients, but less than half prayed *with* their patients (11).

Two studies examined the use of prayer in the rehabilitation setting. One inquired about the religious practices of occupational therapists, of which 84 percent felt that spirituality was an important part of life. However, the majority felt that it was outside of their scope of practice (12). Another study of 1,221 rehabilitation professionals that included physiatrists, nurses, occupational therapists (OTs), and physical therapists (PTs) indicated that, although 56 percent believed prayer to have legitimacy as a clinical intervention, only about half that number (27 percent) used it in clinical practice or referred the patient to another

practitioner (13). In the same study, meditation ranked higher (73 percent) than prayer as a legitimate therapy, although clinicians were less likely to use it in their personal and professional practice.

Survey studies overwhelmingly indicate that patients, for the most part, desire more physician–patient interaction with regard to prayer and spiritual beliefs. Ehman et al. surveyed 177 patients in a university teaching hospital outpatient pulmonary practice, two thirds of whom felt that physicians should ask whether a patient’s spiritual or religious beliefs would influence patient medical decisions (14). Half of those surveyed denied having religious beliefs that would influence medical decision making. King and Bushwick questioned 203 inpatients on a family practice service about the relationship between religion and health. The terms “religious” and “spiritual” were not considered separately in this report. Seventy-seven percent wanted physicians to consider their spiritual health and 44 percent wanted their physician to pray with them; however, 68 percent said that they had never discussed their beliefs with their physician (15).

STUDIES EXAMINING THE EFFICACY OF PRAYER

Studies examining the efficacy of prayer pose particular difficulty to the researcher. In the presence of a prayed-for versus a control group, how can we be sure that those in the nonintervention group are not being prayed for outside of the study design? Is the quality or the quantity of prayer more important, and how are those aspects of prayer defined? The number of studies examining self-prayer and intercessory prayer is limited and fraught with such problems. Nonetheless, numerous associations between positive health behaviors and prayer have been made (16–20). Prayer is used as an important coping strategy to help manage the stress associated with illness and healthcare events (21). One study found that prayer was the most widely used self-help intervention for a group of individuals with arthritis (22). In another study surveying patients undergoing cardiac surgery, 96 percent indicated that prayer was used as a coping mechanism to deal with the stress of cardiac surgery (21). It appears from these findings that, overall, patients with a variety of conditions feel that they derive benefit from the practice of prayer.

Intercessory prayer has been examined in multiple settings. The best known was conducted by Byrd (23), who performed a prospective, randomized, double-blind study of 393 patients admitted to a coronary care unit. Those in the experimental group were prayed for daily by a group of Christian intercessors. Those in the experimental group had a better overall course with fewer complications than controls, but no significant difference in mortality or number of hospital days was found. This finding was replicated in a more recent study in a similar setting (24). A randomized, double-blind study of AIDS patients showed that those who received distant intercessory prayer for healing were healthier overall at six months (25). Prayer also had a positive effect on those with anxiety, depression, and reduced self-esteem (26), but not on wound healing (27) or alcohol abuse patterns (28).

MEDITATION

Outcome studies on meditation are greater in number than those examining prayer as a medical intervention. The three forms of meditation practice that have been reported on in the clinical setting are the Benson-based model, which is usually combined with behavioral modification; the Kabat-Zinn model, based on the Zen practice of mindful meditation; and Transcendental Meditation (TM). The traditions of meditation rooted in diverse cultures such as Judeo-Christian, Native American, African, and Islamic (29) will not be discussed here, because they have not been subject to clinical trials.

The Benson-based model uses the *relaxation response*, described as the opposite of the adrenaline, or “fight-or-flight” response. Patients are taught to sit comfortably, slow their breathing, and empty their mind of extraneous thoughts. Exercises to facilitate this state of relaxation are learned by the participant until he is able to attain this state of relaxation at least 20 minutes per day. In studies reporting the positive health benefits of this modality, subjects take part in a 10-week course in which they also learn to modify negative thought patterns and change their reactions to stressful situations. This model has been used in many hospital-based centers throughout the country, with benefits reported in the treatment of anxiety (30), hypertension (31), chronic pain (32), insomnia (33), infertility (34), and in preparation for surgical procedures (35).

The Kabat-Zinn model

The Kabat-Zinn model uses mindful meditation, yoga, and body awareness exercises. Mindful meditation is based on calming the mind by following the breath. The patient is taught to think and act as if there is nothing wrong, and that for the moment, all is as it should be. When random thoughts appear, the meditator simply brings the mind back to the breath. In studies reporting the positive health benefits of this modality, subjects take part in an 8-week course in which they meditate for progressively longer periods of time, culminating in an all-day meditation. They are instructed to do a sitting meditation for a period of approximately 20 to 45 minutes per day, combined with simple yoga postures and a “body scan” or body awareness exercise. Clinical trials have shown positive benefits in the areas of reduction in chronic pain (36), anxiety (37,38), and psoriasis (39,40), as well as anecdotal reports of the alleviation of a multitude of other disorders (41). This model has been integrated into several modern clinical settings.

Transcendental Meditation

TM is a form of meditation popular in the United States (42). The technique involves a sitting meditation practiced for 20 minutes twice daily and silently repeats a *mantra* (word or phrase) (42). The goal is to induce a state of consciousness that transcends the usual distractions of the mind (43). The practice of TM has been shown to reduce systolic BP in normotensive (44) and hypertensive males

(45), to enhance substance abuse treatment (46), and to improve exercise tolerance in cardiac patients (47).

PHYSIOLOGICAL RESPONSES ASSOCIATED WITH PRAYER AND MEDITATION

Experienced meditators have been shown to produce dramatic physiologic changes while meditating. These include lowering of the pulse and respiratory rates, a decrease in oxygen consumption and blood lactate levels, and changes in EEG patterns (30). Together, these physiologic changes have been termed the relaxation response (RR) by Herbert Benson. An increase in skin galvanic response has been noted in TM practitioners (43). Recently, functional MRI (fMRI) studies have been conducted in meditating subjects. They indicate that, in general, global fMRI signals decrease; specifically, meditation activates neural structures involved in attention and in control of the autonomic nervous system. Although these are generalized responses found in beginning meditation students, advanced meditators may show significantly different physiologic control of metabolic functions (48).

Mechanisms of Action

If habitual internal and external stressors can produce changes in the cardiovascular system, as has been well described in the literature (49,50), it is conceivable that elicitation of the RR on a regular basis can cause a decrease in the level of sympathetic arousal. More difficult is an explanation of how prayer can influence medical outcome when the subject has no knowledge of whether he is being prayed for. Levin (18) describes possible mechanisms of action for the efficacy of prayer.

The first proposes that the knowledge that one is being prayed for may cause an increase in the subject's feeling of well-being, and a sense of being cared for. This may engender positive expectation and stimulate the immune and endocrine systems to facilitate healing. To explain why prayer seemingly helps with healing in subjects who do not know whether or not they are being prayed for (23,24), there may be mechanisms as yet undescribed by scientific laws. Levin argues that there may be as yet undiscovered natural forces that are put into action with prayer. Lastly, there may be forces outside of nature, incomprehensible to man (the "supernatural forces," as described by many religions), which are activated by prayer.

Although he does not suggest a mechanism for the efficacy of prayer, Gerber, a pioneer in the field of "energy medicine" (that area of medicine that attributes an energetic basis for physiologic processes), describes the workings of the body as a complex dynamic energy system. Using Einstein's equation $E = mc^2$, he describes how energy and matter are interconvertible, which may be used as the basis for an explanation of how unseen energies or vibrations may affect physiologic processes (51). This may apply to prayer and meditation as well as to other modalities in which we have no physiologic explanation for efficacy.

SPIRITUALITY IN CLINICAL PRACTICE

Preindustrial cultures such as the Egyptian, Native American, and Chinese recognized the importance of spirituality in the well-being of the individual and of society. Prior to Sigmund Freud, modern Western medicine considered the body as the primary component of health and disease. The advent of modern psychiatry introduced the concept of the mind as an important component to health. The field of psychoneuroimmunology links emotions and the neuroendocrine system, giving us a physiologic basis for the interplay of mind, emotion, and well-being. Current medical practice recognizes the importance of mental and emotional health, but what of one's spiritual health? Increasingly, modern physicians and scientists report on the importance of integrating spirituality with scientifically based medicine.

Einstein stated that he could not conceive of a genuine scientist without profound faith (52). Mehmet Oz, a cardiac transplant surgeon known for his use of complementary therapies in the OR and postsurgery, describes multiple case studies in which spirituality was a deciding factor in patient survival (53). Herbert Benson, a cardiologist and founder of the Mind Body Medical Institute, in Boston, describes similar experiences (54). Robert Gerber, who has proposed a unifying theory for many complementary therapies (55), states that "A system of medicine which denies or ignores [the spirit] will be incomplete, because it leaves out the most fundamental quality of human existence—the spiritual dimension"(55).

Rehabilitation medicine, which pioneered the patient-centered, multidisciplinary approach to medical treatment, is well suited to integrate mind, body, and spirit in patient care.

Finally, when discussing spirituality and medicine, it is important to differentiate between healing and cure. Whereas *cure* occurs at a physical level, *healing* occurs at a spiritual level, connecting the patient to a wholeness that exists beyond the presence of impairment, disability, or handicap. It assists the individual in understanding that an anatomic, biochemical, or physiologic defect does not preempt a life that is full of purpose, contentment, joy, and connection and service to fellow human beings. The following section is a clinical report of healing at the spiritual level by a hypnotherapist working with an amputee during his rehabilitation.

Case Study Integrating Rehabilitation and Mind-Body-Spirit Medicine

A patient was referred by a physiatrist to help him deal with excruciating phantom pain. The young man, Danny, was 19 and had his right leg amputated 8 inches below the hip. Pain medication, physical modalities, and cognitive work were ineffective over a several month period. In his initial sessions, Danny was encouraged to discuss not only his physical discomfort, but his feelings about loss of a part of his body, and what this symbolized to him on societal and spiritual levels. Using the relaxation response, breathing techniques, and hypnotherapy, he learned first that he could self-modulate the phantom pain. His psychological distress decreased when he was able to have some control over his discomfort. He was then led through a series of exercises that guided him to see himself as a

whole human being, functioning on the physical, mental, and spiritual levels simultaneously. He was encouraged to imagine himself working at his greatest potential, with much to give to the world around him. He was asked to name the qualities that he wanted his future life to possess. He learned that what he had to offer far outweighed any limitation that an amputation imposed on him, and that the things he wanted most in life included qualities of the spirit: happiness, a feeling of belonging, a sense of purpose. He understood that his condition did not limit attainment of these qualities. Absence of a part of his body was seen as a smaller part of the greater self that he had learned to identify with. Pain levels continued to decrease as he experienced this greater sense of self. After working over a 3-month period, he was independent, with self-management of pain. The clinical hypnotherapist reported that she noted the greatest change in Danny when he saw that his experience as an amputee could serve to connect him more, not less, to the world around him. Danny is now a college graduate and has traveled throughout the world exploring diverse forms of healing. He plans to become a healthcare practitioner in the future. Danny attributes his success to being able to access the physical, mental, and spiritual aspects of healing simultaneously.

INTEGRATION OF SPIRITUAL PRACTICES IN THE REHABILITATION SETTING

Attention to spiritual needs may result in higher patient satisfaction, improved patient outcomes, and optimal quality of life. In the case above, the patient was referred by a physiatrist to a practitioner known for her skill in dealing with spiritual issues. When introducing the discussion of issues relating to religious and spiritual health with patients, practitioners must be open and sensitive. Careful wording and respect for an individual's privacy and beliefs when making such an inquiry will result in feedback that will indicate the level of comfort for further inquiry. Physicians must be aware of their own level of comfort with issues of spirituality in the clinical setting. Magaletta (56) lists levels of physician involvement in prayer such as: physician praying privately for the patient, open encouragement of the patient to pray for themselves, and finally, praying openly with the patient. Schiedermayer (57) outlines core principles for clinical prayer, including asking for patient consent, avoiding discussion of the patient's or physician's religion, concentrating prayer on the patient and his or her illness, avoidance of proselytizing, and the use of prayer for support, not treatment.

Adding spirituality to the rehabilitation setting is not necessarily based on religion, and does not need to include prayer. Meditation, because it may be seen as both a religious and a religiously "neutral" practice, may be easier to integrate into multicultural settings.

In the inpatient setting, meditation tapes may be provided for patient relaxation and comfort, and meditation may be encouraged prior to procedures that may be anxiety producing. A regular inpatient prayer, meditation, or relaxation group provides a sense of community and shared spiritual activity. Spiritual counseling and support can also be a valuable resource for patients, family, and staff.

In the outpatient setting, structured behavioral medicine/meditation courses support the rehabilitation process. One model is that used at the Rehabilitation Institute of Morristown Memorial Hospital, in Morristown, New Jersey. Patients with stress-related barriers to achieving maximal function are routinely referred to a Mind Body Center housed within the Institute. They are triaged to formal stress reduction courses based on the Benson model, as well as on individual stress reduction or meditation training sessions. For less structured treatment, group meditation is held weekly. Meditation tapes are made available for integrating meditation practice into daily life.

CONCLUSION

With the increasing popularity of complementary and alternative medicine, prayer, meditation, and spirituality have become an important focus of attention for patients and physicians alike. Patient surveys have demonstrated a desire for physician acknowledgment and validation of their spiritual needs. A growing body of evidence supports prayer and meditation as effective adjuncts to patient care. Multiple models for the integration of these modalities into the inpatient and outpatient settings exist. With an appropriate understanding of a patient's level of need and comfort with regard to prayer and meditation, the rehabilitation professional has the opportunity to significantly increase patient comfort, satisfaction, quality of care, and quality of life.

ACKNOWLEDGMENT

Stephen Levine and his wife Ondrea have worked over many years with the dying. Levine worked closely with Elizabeth Kubler Ross and, after her death, continues with the wonderful work she started. Levine believes that everyone must die in consciousness, as opposed to struggling and fighting death as if it were an enemy. We all must die; it is Levine's belief that we should all prepare for our eventual death by not only dying in consciousness, but living every part of our lives in consciousness and awareness of the spiritual part of our being. He believes that only in this way can we live life to the full and that such a way of life will prepare the individual for the time when that person ends his or her life. He advocates meditation, awareness of the needs of others, and service as a way of achieving this. All these are qualities of our spiritual side.¹

Dr. Deepak Chopra has carried out extensive research into states of well-being uniting all the parts of the human being. In his book *Quantum Healing*², he describes the "body of bliss." Dr. Chopra uses two techniques, primordial sound and the bliss technique to allow a person's attention to focus on healing. He quotes a number of apparent miracles. A woman, who had cancer that she had been told was incurable, found that the cancer went into remission after she used

¹ *Who Dies? Conscious Living and Conscious Dying*. S. Levine. New York: Doubleday, 1982; p. 5.

² *Quantum Healing*. D. Chopra. New York: Bantam New Age Books, 1989; p. 225.

the techniques that Dr. Chopra taught her. Both these techniques are based on the links between the mind, body, and spirit. He says, "The possibility that each person is an infinite being is becoming more real now." The infinite part of us, of course, is the spiritual part.

Dr. Joan Borysenko says that we all "have the right to be happy. The best outcome of crisis is a return to our own true nature, to the inmost center or Higher Self." By the Higher Self³, of course, Dr. Borysenko means the spiritual part of our being. Her words are true of any crisis, including a health crisis. It is my understanding that to become balanced as a total being, it is important to be aware of the spiritual side of our being. It is only then that true healing can occur.

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³ *Fire in the Soul*. J. Borysenko. New York: Warner Books, 1993; p. 206.

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