

The Importance of Incorporating Faith and Spirituality Issues in the Care of Patients with Chronic Daily Headache

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Patients with chronic daily headache are difficult and often frustrating to treat. They are in many ways similar to chronic pain patients and patients with other chronic serious illnesses that have come to alter many aspects of their life, affecting their physical and emotional well-being, their ability to work, and their family and social relationships. The best treatment strategies for patients with chronic disease combines pharmacologic and behavioral strategies with the behavioral strategies incorporating body, mind, spirit, and social interactions. Numerous studies have demonstrated a positive association between being religious or spiritual and improved health, both in response to acute events and in chronic disease. Because religion is so positively associated with improved outcomes, it is important for physicians to recognize this aspect of a patient's life and try to encourage positive use of the patient's belief system as an adjunct in treatment.

Introduction

Patients with chronic daily headache (CDH) are similar to most patients with chronic pain; their disease is not easily quantitated, but usually is associated with multiple comorbidities, some of which that may be causally related to or a direct result of the disease process or often due, at least in

part, to the treatments and medications. Numerous psychologic and affective disorders are associated with migraine, particularly chronic migraine, such as depression, generalized anxiety disorder, and panic disorder [1]. Depression and adjustment disorders have been reported in 23% and 45% of CDH patients, respectively, in a study by Curioso et al. [2]. Puca et al. [3] found at least one psychiatric disorder in CDH patients with anxiety disorders (45%) and mood disorders (33%) predominated. Perhaps there is a causal connection between the psychologic and physical aspects of these disorders. Cady et al. [4] discussed a model of cosensitization of nociceptive and affective (limbic) systems in the pathogenesis of transformed migraine and the associated psychiatric comorbidities. Most of us (patients and physicians alike) struggle with the proverbial question of 'which came first?', but in a practical sense, it matters little.

Much has been published regarding addressing the behavioral and emotional comorbidities in managing CDH and, in most headache centers, counseling, cognitive behavior therapy, and relaxation training are standard components in management protocols. The idea is to help patients learn to cope better with their pain and their life situations, and to develop skills to manage the stress and heightened emotions that may trigger or exacerbate their headaches. Meditation and relaxation therapy have long been mainstays in the behavioral approach to managing headache and pain. What is interesting is that very rarely is this approach ever discussed in terms of religious activities, although in many ways, engaging in prayer and religious meditation or reflection is much the same. It seems that physicians have shied away from using religious terminology or addressing religious issues with patients.

A detailed review of the headache literature reveals very little published information addressing the incorporation of faith and spirituality issues in the management of CDH. There have been articles discussing the historical context of headache treatment by incantations of the priests of Eridu, ancient texts ascribing the causation of headache to evil spirits, and the long history of religious superstition that any illness was the result of

sin and was the consequence of such and required the purging of evil spirits, confession, and repentance [5]. There has been a report of headache relating to the first-of-Ramadan, which essentially are headaches occurring in relationship to fasting [6]. The most detailed and focused article addressing faith activities and headache focused on coping with pediatric migraine. In this article, Gilbert [7] stated that migraines often coexist with elevated symptoms of somatization, depression, and anxiety in children. She cited a study that found 33% of psychiatric inpatient children with non-specific headaches and numerous studies showing a high association of depression and headache and anxiety disorders and headache. In studying coping strategies, Gilbert [7] found that prayer served multiple functions, including serving as a problem-focused activity; asking God for relief from headache pain was an active coping strategy intended to reduce or eliminate a stressor. As an affective coping behavior, the soothing, repetitious sound of meditation or prayer increased serenity and reduced tension. It also functioned as social support. As a cognitive coping behavior, prayer altered informants' perspectives of themselves or the stressor by diminishing the power of the threat (eg, God will not give me more adversity than I can bear).

Our Spiritual Foundation

Humans are spiritual beings. Essentially every culture has some beliefs that form the basis for how those individuals interpret and make sense of reality, especially the reality of pain, suffering, and tragedy (eg, death). Archeological records of even the most ancient peoples reveal an association of illness and seeking healing by appealing to the gods or spirits, most often through mediators. The religious leaders and shaman of ancient cultures, and even of some cultures in less industrialized countries today, acted as the healers and the medicine men. Ancient Greek and Egyptian cultures blended their healing arts with their religion, and physicians such as Aesculapius and Imhotep were revered on an almost god-like level. Religion and medicine became much more divided during the period of the Renaissance due in large part to Galileo and his rigorous pursuit for objective, measurable proofs. Although this put him at odds with the Catholic church, it did much to promulgate the scientific methodology. However, physicians remained highly respected and closely linked with the church; indeed, it was through church affiliations that hospitals and healthcare became so widespread and the provision of healthcare became viewed as something to be made available to everyone if possible, rather than just the privileged wealthy. Medicine became more and more objective, physical, and quantitative. However, physicians remained keenly aware of the relationship of faith and healing. Even the pioneer of modern scientific medicine, Dr. William Osler [8], wrote in 1910 of "the faith that heals." However as the 20th century progressed, medicine and science became more technical, more physical, and separated itself more and more from the spiritual aspects of health. Indeed, religion and religiosity were considered psychological diseases by many after Freud's "Obsessive Acts and Religious Practices"

[9] and "Future of an Illusion" [10], in which he described religion as a "universal obsessional neurosis." This negativity toward religion and mental health persisted in the world of psychiatry well into the 1990s despite such statements being based largely on opinion and personal clinical experience. However, studies in the late 1980s and 1990s were done and published demonstrating the widespread use and apparent benefits of religious practices in medical settings. Despite such evidence, many physicians still are reluctant to tend to the issues of faith and religious activities in their patients.

Religion and faith are important to Americans. According to a recent Gallup survey, 95% of Americans believe in God or a universal spirit, 83% indicated the religious or spiritual beliefs are important in their own lives, 68% attend church at least once a month, and 54% believe that religious beliefs or spiritual practices are having an increasing impact in people's lives [11]. Interestingly, these percentages have remained quite stable throughout the past 25 years of Gallup polling data. US physicians also tend to be religious. In 2003, the University of Chicago Center for Clinical Medical Ethics surveyed 1044 physicians and found that 76% stated a belief in God, 59% a belief in some sort of afterlife, and 55% of the respondents reported that their religious beliefs influence how they practice medicine. The distribution of faiths among the physician respondents was more varied than in the general US public, which is 80% Protestant; among the physicians, 14% were Jewish (vs 2% of general population), 5% were Hindu (vs < 1% of the general population), and approximately 3% were Muslim (vs < 1% of the general population) [12]. Therefore, why do we tend separate faith and medicine?

Data on Religion and Health

Studies have shown that when faced with chronic medical illness, many people turn to their spirituality and religious beliefs as a means of coping and dealing with their illness [13,14]. There are extensive reports of incorporating faith and spirituality in the care of cancer patients and patients with terminal illness (eg, hospice care). Probably more than any other area of medicine, hospice care, or end-of-life care, has put an emphasis on the integration of conventional medical therapy with the patients' faith and spirituality.

Religion and spirituality play an important role in a person's health. Several studies demonstrate high rates of depression and other emotional illness in people with chronic disease or physical disability. Acute serious medical illness also is associated with depression and emotional distress, the severity of which quite often is directly related to the extent of their medical illness and associated functional loss [15]. Koenig et al. [15] reported that religious coping was significantly and inversely correlated with depressive symptoms in patients who were hospitalized with acute serious medical conditions. They further documented numerous studies showing a positive association between religious involvement and better adaptation to medical illness, improved attendance at scheduled medical

appointments, and better compliance with taking prescribed medications.

People often turn to religious coping mechanisms when faced with chronic or serious medical conditions such as end-stage kidney disease, AIDS, heart disease, and cancer. In a study of patients with rheumatoid arthritis, patients who reported using positive religious and spiritual coping strategies had higher levels of positive mood, lower levels of negative mood, and higher scores in measures of support domains. Although many of the participants reported decreased pain levels and increased ability to function through the use of their religious activities, they rated the efficacy of spiritual and religious coping in controlling pain as somewhat low. That is, by engaging in prayer, religious study and meditation, and other religious activities, they reported that they would often have somewhat less pain, the relief of pain was not dramatic, and apparently was not what kept them engaged in their religious activities. There was a direct correlation between the frequency of participation in religious/spiritual coping activities and the self-rating reports (diaries) of emotional well-being, decreased pain, and decreased negative mood. Similarly, the frequency and intensity of participation in religious activities has been correlated with positive correlations in lowering blood pressure, fewer cardiac events, better results following surgery, and longer survival in general [16•]. It may well be the psychologic benefit and emotional comfort allowing people to find personal strength in the face of persistent pain that kept them so strongly positively inclined toward their religious and spiritual behavior.

Psychophysiology of Prayer and Meditation

How does religious/spiritual coping lead to such positive pain and psychologic outcomes? There are several possible theoretical pathways. Simplistically, it makes people feel better emotionally, and repeated positive feelings improve emotional and psychologic status quo. Pargament [17] has developed a transactional model of religious coping wherein religion contributes to the coping process by shaping the character of life events, coping activities, and the outcomes of events. Religion also can be a product of coping and, as such, people can increase their religious faith through life events. As part of an orienting system, religion influences how individuals appraise situations, participate in activities, and develop goals for themselves. In particular, when faced with difficult situations such as serious medical illness, individuals have reported using a wide variety of religious coping methods [17].

However, there is more science involved. Psychophysiology studies have demonstrated that transcendental meditation and Zen meditation and relaxation exercises result in quantitative electroencephalography (EEG) and psychophysiological changes during the activity of meditation, thus lending support to the mind-body interaction and the therapeutic effects of such activities [18]. Prayer often is characterized as a form of meditation, although there have been no psychophysiological studies comparing different prayer modalities with different methods of meditation. It is reasonable

to presume a similar relaxation state and physiologic response can occur when people pray in a manner that brings them tranquility and peace of mind. Another study demonstrated that Zen meditation lowered levels of nitric oxide and increased lipid peroxidation, both of which would lower cardiovascular disease risk [19]. A third study [20] reported actually suggested caution for recommending meditation in patients with epilepsy, as EEG changes occurring during meditation demonstrate hypersynchrony, and neuroimaging during meditation demonstrates increased activity in the prefrontal cortex and cingulate cortex, which leads to increased production and release of glutamate. After meditation, there also is increased urinary excretion of serotonin metabolites [20]. Taken together, Jaseja [20] argues that these physiologic changes induced by meditation actually may predispose to seizures. However, more to the point, these recent studies demonstrate that spiritual activities have direct and indirect neuropsychophysiological effects. The EEG studies demonstrated the areas of activity during meditation to be an increase in parasympathetic activity and a decrease in the sympathetic activity. The sympathetic and parasympathetic tracts connect thoughts and emotions in the brain to the circulatory system, coronary arteries, lymph nodes, bone marrow, and spleen [21,22].

The Positive Effects of Religion

Given the strong evidence that religious/spiritual activities help patients cope better with serious medical illness and result in less stress, anxiety, and depression, it is reasonable to expect such activities to counteract the physiologic changes associated with stress. There is some evidence suggesting that religious/spiritual activity improves immune function, lowers cortisol levels, and lowers c-reactive protein [23–25]. People who attend religious services regularly have been shown to have higher feelings of self-esteem and self-worth. Religion may engender positive emotions and provide a sense of meaning that helps individuals cope with adverse situations such as illness and disease. Positive religious coping activities tend to foster feelings of control and enhance one's ability to manage difficulties, which contribute to better health outcomes [26•,27,28].

People who are more active in their religious/spiritual activity also tend to follow health-promoting behaviors such as abstaining from alcohol and tobacco, which may account for some of the positive benefits. However, comparing religious and non-religious smokers, non-religious smokers were seven times more likely to have elevated diastolic blood pressure [29–32]. Keefe et al. [33•] report that “religiousness and spirituality have been linked to enhanced well-being, reduced depression and psychologic distress, and reduced morbidity and mortality. Overall, nearly every medical study that has considered religion has found it to be a positive factor for one's health.

The Negative Effects of Religion

Although Religion can have very positive effects on a person's health, it also can have negative effects, particularly when people engage in maladaptive or problematic coping activities, including the following: passive coping styles during which individuals surrender control or responsibility over problems to a higher power; feelings of divine abandonment; beliefs that personal problems reflect divine judgment or punishment; and feelings of anger toward God. Empiric studies have linked these negative coping strategies with outcomes ranging from depression and anxiety [34] to poor rates of recovery from orthopedic fractures [35] to increased risk of death in at least one clinical sample [36]. Patients who are in a religious struggle or turmoil and believe they are being punished by God or have been abandoned by God experience worse outcomes. A study by Pargament et al. [37], who prospectively followed 595 hospitalized patients, found that such patients experienced 19% to 28% higher mortality during a 2-year period following hospitalization. This effect was independent of physical health, mental health, and social support. Chronic religious doubting also may pose health problems for at least two reasons: such people lack what for many is an important source of existential certainty and clarity, which may increase vulnerability to stressful conditions; and chronic doubters may feel guilt or embarrassment and consequently refrain from sharing their concerns with others. Several recent studies have shown that significant religious doubts are linked to psychologic distress and declines in physical health status [38–40].

Clinical Applications

Given the positive benefits of religion, as well as the potential for negative effects, it is important to take a spiritual history and to screen patients to ascertain their spiritual background, religious foundation, and current level of belief and participation in spiritual activities. Indeed, to determine if the patient is engaged in negative coping strategies and to make a referral to a pastoral counselor or chaplain may be even more important to causing an improvement in the patient's health status than encouraging those who are engaged in positive religious coping activities to continue.

Application to chronic daily headache

With regard to CDH, how should we go about incorporating our patient's faith into the management of their disease? The first step is to be open and willing to address this with patients. Clinicians can simply and easily inquire about faith foundation and activities in an intake questionnaire. Follow-up questions may be completed or left blank at the patient's discretion. A brief spiritual history tool has been used in several practices and found to be acceptable and non-intrusive to patients. In fact, many patients have expressed a desire for their physicians to be more open to addressing spiritual issues with them [41,42].

It is important to support the religious/spiritual beliefs that patient may find helpful, particularly if they do not conflict with medical care. If the patient is not religious, the physician should not persist, but rather direct the conversation to a discussion of

what enables the patient to cope or what gives life meaning and purpose in the setting of their chronic pain. The physician need not have similar beliefs or even be religious. The most important thing is the respect and support that the physician shows for the patient's beliefs. If a physician demonstrates an open, caring concern and respect toward patients, they will feel comfortable discussing deeply personal issues. Encouraging patients to engage in activities appropriate to their faith, to re-establish themselves in their faith community, and to consider spiritual counseling are reasonable practices for physicians. The practice of prayer and religious meditation is very much like cognitive behavioral therapy, structured thought framing, and relaxation therapy, all of which have been well demonstrated as beneficial in improving the comorbid psychologic disorders that are so common in patients suffering from CDH and other chronic pain syndromes.

Facilitators of Spiritual Assessment

Having patients complete a brief spiritual inventory (Table 1) as part of their health history is very easy to implement. Such a questionnaire is non-threatening, nor is it an imposition for the patients because they answer the questions on their own and can choose which questions they prefer to answer and which to ignore. Providers can review the responses and then simply follow-up with patients regarding the brief spiritual inventory. Questions include the following:

1. Is religion helpful to you in handling your illness?
2. What gets you through the tough times in your life?
3. How would you rate your spiritual health at this time?
4. Would you like to have some help in this area?
5. What can I do to support or address spiritual or religious issues in your life [43]?

Barriers to Spiritual Discussions

What keeps physicians from addressing religious or spiritual issues? In a survey of primary care providers, the most common reason cited was lack of time, followed by lack of comfort and lack of training [44]. However, when recognizing that life and health are, in a manner of speaking, spiritual journeys, and because most people consider themselves spiritual, to completely ignore this is analogous to not taking vital signs. Patients may not be in any visible distress, therefore they must be breathing; they have a pulse and blood pressure; but without assessing those vital signs, how do we know if they are truly healthy? Indeed, many clinicians are simply uncomfortable addressing an area for which they have little professional training and, for most of us, our medical training actually emphasized putting aside religion, and anything that might be considered as "personal philosophy or views."

Most physicians do not have the training to address religious or spiritual issues in the setting of medical illness. Although more than half of US medical schools now offer courses on religion and medicine and cross-cultural issues, psychiatry residencies have required training in religion and

health issues, and family practice residencies are strongly encouraged to include such subjects in their curricula, most physicians have neither the expertise nor the time (or comfort) to counsel patients in religious or spiritual issues.

Conclusions

Recognizing that CDH and chronic pain patients are often quite similar, the studies examining outcomes using religious coping strategies are reasonably applicable. Because patients with CDH have such a high association of depression, anxiety, and other behavioral and emotional comorbidities, and because much of the literature focuses on behavioral intervention, it is appropriate to recognize religious and spiritual activities as part of the range of behavioral therapies for these patients [45••]. In many ways, much of cognitive-behavioral therapy and relaxation training is contained within the personal religious activities of patients, such as praying, meditating, thought-framing, relinquishing control, dealing with shame and guilt, letting go of anger, creating intimacy, removing isolation, and creating hope and dreams. Chronic pain can replace a person's autonomy and self-esteem with feelings of helplessness and hopelessness. Perhaps through improved spiritual insight and activities, these patients can find meaning in what seems incomprehensible and learn to cope with the intolerable.

As an important part of a patient's being, we are remiss in not addressing and attending to their faith or spirituality or, at a minimum, being aware of it. This is part of practicing what is known as "whole-person medicine," which is necessary in treating chronic pain conditions. Addressing each patient's spiritual foundation can provide a potentially powerful therapeutic tool. Physicians should not prescribe religion or assume the role of spiritual counselor or mentor. However, because religion relates to health and spiritual issues that are important to patients with chronic illness, totally deferring assessment of these issues to clergy or social workers likely is unwise.

Encouraging patients to renew, strengthen, and engage in the religious activities important to them is not unlike recommending the behavioral therapies and interventions that already are so often recommended, but couched under different names and divorced from religious or spiritual foundations. Discovering maladaptive religious or spiritual issues and encouraging the patient to seek pastoral counseling may be as important. Given the challenges faced in trying to improve the suffering experienced by patients with CDH, grasping and using every tool available makes sense. Incorporating the patient's faith and spirituality appears to be a powerful tool.

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Part of the CME Feature on Spirituality, this article is an excellent, concise review of the research on religion and its

effects on health and the arguments for incorporating patients’ faith into clinical practice.