Does Spirituality as a Coping Mechanism Help or Hinder Coping With Chronic Pain?

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Chronic pain is a complex experience stemming from the interrelationship among biological, psychological, social, and spiritual factors. Many chronic pain patients use religious/spiritual forms of coping, such as prayer and spiritual support, to cope with their pain. This article explores empirical research that illustrates how religion/spirituality may impact the experience of pain and may help or hinder the coping process. This article also provides practical suggestions for health care professionals to aid in the exploration of spiritual issues that may contribute to the pain experience.

Introduction

There is general agreement that health care, including chronic pain management, involves more than treating an ill physical body. Relational models of health suggest that caring for the sick requires attending to all of the patient's disrupted relationships, including those that are biological, neurological, psychological, social, and spiritual [1,2]. This can present a daunting task for physicians who are given an average of 7 minutes to create rapport, assess, diagnose, and develop/describe a treatment plan. Given competing time demands, one may wonder if spirituality should be discussed in the clinical encounter and in chronic pain management. If spirituality influences the patient's ability to cope with chronic pain, in either positive or negative ways, then considering spirituality would be an important discussion. In this review, we hope to 1) demonstrate that the patient's spiritual beliefs and practices are relevant to health care; 2) describe the ways in which the patient's reliance on spirituality helps or hinders coping with chronic pain; and 3) outline how a busy physician can attend to and provide care for the spiritual dimension of health.

Spirituality and Pain

It is important to define what we mean by spirituality. Spirituality has been defined as "every person's inherent search for ultimate meaning and purpose in life" [3]. Spirituality may or may not include belief in a higher power. It can be expressed in a set of philosophical beliefs, in relationships with art, nature, and music, or in relationships with loved ones [2]. Spirituality helps to inform our unique view of the world. This worldview plays an important role in determining how we understand negative events, including illness, and how we choose to cope with them. Notably, many patients believe that spirituality should not just be a private affair. Research has shown that 41% to 94% of patients want their physicians to address spiritual issues [4,5]. A national Gallup survey revealed that 70% of adults reported that it was somewhat to very important to have a physician who is spiritually attuned to them [6].

Chronic pain is a severe, often intractable, disorder that can severely impede quality of life. Medications for pain management can be useful but they often cause unpleasant side effects. This may leave patients seeking out alternative pain control resources, such as those that include their spiritual beliefs and practices [7]. The Gate Control/Neuromatrix Theory of Pain provides a conceptual basis for how spiritual beliefs and practices may influence pain management by describing how psychological and biological pain factors are related [8,9]. These theories propose that the experience of pain is more than a simple biochemical transmission of pain from the body up the dorsal horn of the spinal cord to the brain. Instead, multiple pathways involving cognitions, emotions, and behavior can influence the pain signal, reducing or increasing the actual experience of pain in real time. The Gate Control/Neuromatrix models of pain emphasize the role of psychological states as potential mediators of pain

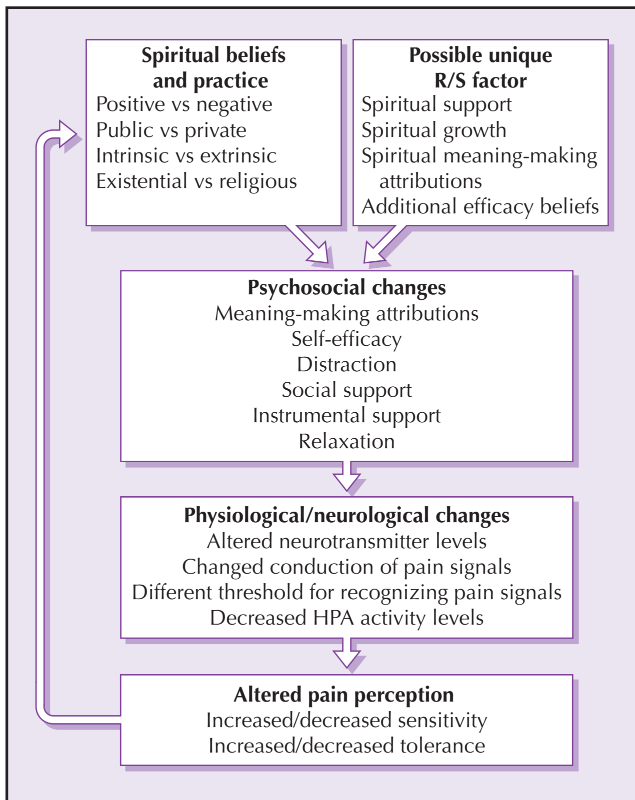

Figure 1. Potential pathways between spirituality and pain. HPA—hypothalamus-pituitary-adrenal axis; R/S—religious/spiritual. (*From* Wachholtz et al. [19••]; with permission.)

[10]. It also recognizes the potential for psychosocial factors, such as negative emotions, social support, sense of self-efficacy, and coping strategies, to impact reports of pain [11,12] (Fig. 1).

Biologically, there are multiple potential pathways through which religion or spirituality may affect the experience of pain [13••]. Research exploring specific biological pathways has shown that the density of serotonin receptors in the brain is related to spiritual proclivities. This raises the possibility that spiritual practices may actually influence serotonin pathways in the brain that regulate mood and pain [14].

Religious/Spiritual Coping Strategies

Religious/spiritual (R/S) coping strategies, such as prayer and church attendance, have been linked to a variety of favorable mental and physical health outcomes, ranging from lower levels of affective distress and pain among individuals with sickle cell disease (SCD) [15] to shorter postsurgical hospitalizations among cardiac patients [16]. Various definitions of R/S coping have been offered in the literature. The construct is broadly defined as a multidimensional variable that comprises a range of R/S strategies that may function to reduce distress and generate solutions to problems or stressors confronted by the individual [17,18•,19••]. One way of categorizing these R/S coping strategies, similar to secular coping strategies, is as emotion- or problem-focused in nature [20]. Because different situations create different coping needs, the application of healthy religious coping strategies depends in part on the demands of the situation.

Religious coping strategies have also been grouped into positive and negative categories. Positive R/S coping represents a sense of spirituality, a secure relationship with a benevolent God, a belief that there is meaning in life, and a sense of spiritual connection with others [21]. It is associated with higher self-esteem, better quality of life and psychological adjustment, and spiritual and stress-related growth. Conversely, negative R/S coping is an expression of a less secure relationship with God, a tenuous and pessimistic view of the world, a feeling of punishment, and a religious struggle in the search for significance (Table 1). It is related to depression, emotional distress, and callousness, along with poor physical health, quality of life, and problem resolution [21–24].

Pargament et al. [25] identified three types of R/S coping styles related to the level of passivity or activity that a person takes in addressing his or her problem. The first type, Self-Directing, refers to a style in which the individual is very active and God is completely passive. The second type, Deferring, describes a style in which the individual takes no active steps and passively waits for God to solve the problem. The third type, Collaborative, describes a pattern of coping in which the individual and God both take active roles, in partnership with each other, to solve a problem. Generally, the Collaborative and Self-Directing styles are associated with better psychological, physical, and health outcomes [26•]. However, patients who choose Self-Directed coping because they are struggling with their faith or feel abandoned by their higher power tend to have higher morbidity and mortality [21,27]. It should be noted that the religious coping style that patients are most likely to use when coping with acute pain (Self-Directed) is the style that they are least likely to use when coping with chronic pain (Collaborative) [28].

Empirical Research

A recent review of the literature on R/S among chronic pain populations revealed that prayer was either the primary or second most frequently used coping strategy to deal with physical pain [29,30]. More than 60% of chronic pain patients report that they use prayer to help them cope with pain [31]. Prayer use increases in response to pain [32], and 40% of pain patients report becoming more R/S after the onset of the painful condition [33]. In most research, prayer is identified as a positive resource and is associated with reduced pain and greater psychological well-being and positive affect [34,35].

Table 1. Examples of positive and negative religious coping techniques

Positive forms	Negative forms
Seek spiritual connection	Interpersonal religious discontent
Seek spiritual support	Punishing God reappraisal
Religious assistance to forgive others	Demonic reappraisal
Asking forgiveness	Spiritual discontent
Benevolent religious reappraisal	Reappraisal of God's power
Religion as distraction	
Finding spiritual role models for coping	
Collaborative problem solving with God	

In addition to the more private activity of prayer, public religious activity (eg, church attendance) has been shown to impact pain. In a recent study among individuals with SCD, more frequent church attendance was related to lower sensory and affective experiences of pain, as well as fewer symptoms of somatization, depression, and anxiety [15]. Frequent church attendance (ie, once or more per week) was also linked to lower self-reports of pain intensity among individuals with SCD. The particular R/S coping technique used to cope with pain does not appear to be as important as the valence of the technique: positive R/S coping techniques (eg, seeking spiritual support or benevolent religious reappraisal) are associated with positive outcomes among chronic pain patients [35,36].

Research shows that when pain severity and tolerance are both assessed, accessing R/S resources is more often related to improved pain tolerance and less related to reduced reports of pain severity in arthritis pain [36], chronic pain [35], SCD-related pain [15], migraine headaches [37•], and acute pain [38]. In these studies, patients may identify that they are experiencing the same level of pain as those who do not use R/S strategies but display higher levels of pain tolerance. This suggests that R/S coping does not necessarily change pain severity but changes pain tolerance, allowing pain patients to continue functioning with their daily activities despite elevated pain levels [19••].

R/S beliefs and activities can also influence an individual's mood, which, in turn, can reduce the perceived severity of pain. Yates et al. [39] studied how religious beliefs and activities can modulate the presence or severity of pain indirectly through improving mood. They surveyed oncology patients and found that R/S beliefs correlated positively with general happiness and life satisfaction. Similar to other studies, the participants' R/S beliefs did not eradicate the presence of pain, but those beliefs and practices did correlate with a decreased level of reported and perceived pain. In addition, longitudinal diary studies of pain patients support the concept that R/S coping may improve one's ability to cope with pain [36]. For example, case reports suggest that R/S activities reduce anxiety, allowing relaxation and rest and thereby reducing muscle tension that would otherwise worsen pain by limiting blood flow to affected regions [40].

Despite contemporary research that suggests that prayer is a positive coping mechanism, past research on using prayer as a coping technique has reported conflicting results. In 2005, Rippentrop [30] published a review of six cross-sectional studies examining religion or spirituality as a means of coping with pain. Five of the six studies used the same Praying or Hoping subscale on the Coping Strategies Questionnaire to measure spiritual coping [41]. In some studies, high scores on this subscale were related to more functional impairment, self-reported disability, and higher pain levels [41,42]. Some of the conflicting research results may stem from the original theoretical underpinnings of the questionnaire's Prayer/Hoping subscale. Initially, the authors of the scale assumed that both prayer and hoping were part of a passive coping construct. Over time, however, research has suggested that prayer is an active way of dealing with pain and health issues and is not necessarily related to the more passive coping technique of hoping [35]. In addition, Rippentrop [30] noted that differences in the demographic makeup of the samples, measurement of pain levels, and the augmentation of the R/S coping measure may account for these mixed findings.

The relationship between R/S coping and pain may also depend on the way in which the outcome of pain is defined. Specifically, a decrease in pain severity should be differentiated from an increase in pain tolerance. Although these concepts are both based on the individual's pain perception, when they are differentiated, a patient may report that he or she is still experiencing the same level of pain but report or display better coping with that pain.

Koenig et al. [43] completed a substantial review of the religion and health literature and identified multiple areas in which research has indicated that religion and spirituality may have a positive influence on the individual. However, they also identified eight major areas in which religious beliefs and practices may have negative consequences. These include stopping life-saving medications, failing to seek medical care, refusing blood transfusions, refusing childhood immunizations, refusing prenatal care and physician-assisted delivery, ignoring or promoting

Table 2. Two brief spirituality assessment instruments

SPIRIT	FICA
Spiritual belief system	**F**aith and beliefs
Personal spirituality	**I**mportance of spirituality in your life
Integration with a spiritual community	Spiritual **C**ommunity of support
Ritualized practices and restrictions	How do you wish these issues **A**ddressed
Implications for medical care	
Terminal events planning	
(*Data from* Maugans [51] and Post et al. [52].)	

child abuse, fostering religious abuse, and replacing mental health care with religion [43]. In addition, spiritual struggles and distress, sometimes referred to as negative valence R/S coping, is associated with poorer mental and physical health outcomes [44].

Practical Applications for Health Care Providers

Although a majority of patients would like their physicians to be spiritually attuned to them, and physicians generally agree on the need to attend to and respect patients' religious commitments, physicians often hesitate to raise spiritual issues in the treatment context [45,46]. As such, physicians are unlikely to notice the potential benefits or harm that a patient's spirituality may afford him or her in coping with chronic pain, and will be less likely to be in a position to encourage or intervene when appropriate. Spirituality is a sensitive and complex topic; it is not surprising that physicians tend to shy away from discussing spirituality with their patients. The reasons physicians typically give for not addressing spiritual issues include lack of time or training, fear of projecting one's own beliefs, difficulty identifying those who would desire these types of conversation, the assumption that patients will self-refer, the lack of a physician's own R/S beliefs, and feeling overburdened with competing demands [46]. These are all legitimate and important concerns. We conclude this review by providing some practical suggestions that address these concerns.

Keep the inquiry brief

Understanding the importance of spirituality to patients and the role it may or may not be playing in their management of pain does not need to take a great amount of time, nor does it take a lot of training. A few brief questions about R/S can be asked as part of the assessment (eg, Are you part of a faith community? Is spirituality something that is relevant to your life or the way you manage your chronic pain?) (Table 2). Asking just a few questions can uncover strengths and resources that may be useful to patients in understanding their illness and in managing their pain.

Even brief discussions about a patient's spirituality with a care provider can have significant impacts. In the recent OASIS (Oncologist Assisted Spiritual Intervention Study) study, oncologists were trained to use a semi-structured interview to ask patients how they use their spiritual beliefs to cope with their illness [47]. Training for the oncologists consisted of a short (2–3 hour) training session that included information on the study itself, general interviewing and patient communication styles, and practicing delivery of the study's semistructured interview. After this short training period, physicians reported feeling comfortable delivering the intervention in 85% of the patient interactions. No patients reported feeling uncomfortable with the interaction when assessed 3 weeks after the brief spiritual conversation, and 98% of patients felt that this discussion was a least a little helpful. Patients in the spiritual conversation group also had significantly lower depression scores, higher quality of life ratings, and greater increases in their satisfaction with the care provided by their oncologist compared with those who did not receive the spiritual discussion [47].

Know yourself

As with other value-laden issues (eg, sexuality), to inquire about spirituality does not necessitate that a physician have a faith tradition of his or her own, nor does it require agreement with a patient's R/S point of view. One can "take account" without "taking on." Physicians hold a powerful position in society, with great potential to influence those under their care. As such, it is important that physicians are sensitive to this fact and cultivate an awareness of their own worldview and understanding of spirituality. Self-awareness will help to keep clear boundaries between physician and patient, such that patients will not feel coerced to believe as their physician believes. Proselytizing is not appropriate under any circumstances.

Know your limits and your local resources

Inquiring about the role that spirituality may play in a patient's life and management of chronic pain does not necessitate a discussion of specific theological topics or the engagement of religious rituals or prayer. Nor do we believe it should. Clergy and chaplains are well trained to do this type of work, and we argue that they should be included in the health care team when these types of issues

arise. Spiritual struggles and distress are common among those coping with chronic illness. A brief assessment by a physician can quickly identify those who may benefit from further conversation with clergy. Another resource available to physicians is members of the patients' faith community. Religious support can be a source of self-esteem, information, companionship, and instrumental aid, and can also help buffer stress [48]. Physicians can encourage, if not facilitate, such support when relevant.

Support patients' engagement in spiritual practices

Spiritual practices, such as scripture reading, prayer, meditation, listening to music, rituals, and nature walks, can foster a sense of structure and purpose. Through spiritual practices, patients are able to connect with what is important to them and play an active role in their recovery. Physicians can ask patients about spiritual practices that have been important to them and discuss how they may be relevant to their health and ability to cope with chronic pain.

Take a closer look

Physicians can also play a pivotal role in expanding and deepening our understanding of spirituality and chronic pain management. By using a measure of pain, such as the Brief Pain Inventory [49] or the McGill Pain Inventory [50], and asking some basic questions about R/S (which is encouraged by JCAHO [Joint Commission on the Accreditation of Healthcare Organizations] in outpatient settings and required in inpatient settings), physicians can set themselves up to participate in future chart review research.

Conclusions

In general, R/S coping is associated with positive mental and physical health outcomes. However, several areas of concern have been identified. If patients attempt to rely solely on their higher power for mental and physical health without any form of collaborative problem solving or if patients use negative R/S coping styles, they are more likely to have poorer long-term health outcomes. Therefore, physicians' awareness of how their patients are using their faith to cope with pain will help inform the treatment plan and identify whether a referral to mental health practitioners specializing in pain and/or the psychology of religion would be an added benefit for pain management. We believe that by implementing these practical applications of the empirical literature on R/S and pain, patients and their physicians can position themselves to better understand and manage chronic pain.

Disclosures

No potential conflicts of interest relevant to this article were reported.

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