

## Spirituality in Psychiatry: A Biopsychosocial Perspective

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This paper reviews a body of findings in order to define the nature of spirituality from a biopsychosocial perspective and to illustrate its relevance to the field of psychiatry. The emergence of spirituality within the common culture is described, after which a number of sociobiologically related studies are presented to illustrate how its component dimensions can be defined. These are evolutionary adaptation, affectional ties, subjective experiences, and positive psychology. The relevance of spiritually related issues in psychiatric diagnosis are illustrated, along with examples of their role in symptom relief. The paper concludes with a description of a program implemented to integrate the issue of spirituality into resident training and into group support for hospital-based patients.

Spirituality has come to be an expression of personal meaning and transcendent commitment for many people, more so than religiosity per se. This is evident in recent national probability samples, where 90% of American adults indicated that they believe in "God or a universal spirit" (Gallup, 2002), but more self-designated themselves as "spiritual" (83%) than "religious" (64%) (Adler et al., 2005). This article will examine some aspects of how spirituality can be understood and how it relates to contemporary psychiatry. A number of biological, psychological, and clinical studies will be used to illustrate this.

Religion has been described as an organized system of beliefs, practices, rituals, and symbols associated with the transcendent (Koenig, McCullough, & Larson, 2000). In contrast, spirituality can be considered as a

latent construct which, like personality or cognition, cannot be directly observed, but is inferred from observations of its component dimensions (Miller & Thoreson, 2003). Some authors (Puchalski & Romer, 2000) consider spirituality in broad terms, as that which gives people meaning and purpose in life. In this regard, it can be expressed through religious observance, but it can also refer to a commitment to aesthetics, altruism, and ethnic ties. Others point out that it should also be intense and affectively laden, with a sense of oneness, and a unity with a larger whole. In this respect, participation in a "mysterious essence" can be part of this experience (Schermer, 2003; Shaw, 2005).

Spirituality is relevant on the level of clinical practice because it can be highly influential in a person's life, and potentially relevant to recovery from psychiatric disorder.

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This project was supported in part by the John Templeton Foundation.

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Broadly speaking, the World Health Organization has defined the primary goal of health intervention (WHOQOL Group, 1995) as maximization of quality of life, and not just minimization of disease. More specifically, this has been underlined by both the American Psychiatric Association, whose position statement on the concept of recovery from mental illness “emphasizes a person’s capacity to have hope and lead a meaningful life,” and where treatment decisions are made to suit the patient’s “spiritual and personal ideals” (American Psychiatric Association, 2005). Spiritual and religious needs are also designated as important to assessment of patients in psychiatric treatment programs by the nation’s principal organization that certifies treatment facilities (JCAHO, 2009).

#### EMERGENCE OF THE CONCEPT

In the United States, there is a history of a liberal perspective on traditional religion. Men like Jefferson, Franklin, and Washington retained affiliation with the established Church derived from their English heritage, but they were dismissive of the elaborate cosmologies and dicta of formal religious practice and felt that God revealed his truths not only to one person or priest, but to everyone. This philosophy of Deism was implicit in the freedom of worship implicit in the First Amendment to the Constitution, and set a tone for the young country that allowed for a non-hierarchical religious orientation to emerge in a society that was different from that dominated by European orthodoxies. This was also important in promoting mutual acceptance among the many different ethnic groups that would emigrate to the United States over the succeeding years. It was also compatible with less formalized practices in new communities that emerged as the frontier moved westward. By the early 1800s, church-going in many towns was often characterized by camp meetings that were not oriented to well-established denominations.

By the late 1800s, Darwinism had an impact on the popular culture as an alternative to the literal interpretation of the Bible, and Eastern religions were coming to be known in the United States. For some, a modernist approach went as far as Unitarianism, whose adherents expressed a more generic view of transcendence, considering Jesus as an exemplar for living one’s life rather than a deified figure. Even American fundamentalists contributed the idea that rebirth could come through spiritual rejuvenation. Altogether, these trends allowed for the emergence in the mid-twentieth century of a positive, redemptive view of spirituality.

Religiosity has, however, become influential in the United States over time. Whereas little more than 15% of the American population claimed church membership in 1790 (Melton, 1996), over succeeding years, religious affiliation came to be increasingly common in the United States. For example, church attendance in a typical Midwestern city was found to have doubled over the earlier part of the twentieth century, so that by 1978 about half of all married couples attended church regularly (Caplow, Bahr, & Chadwick, 1981). Survey data today show that 84% of Americans self-identify with some religious denomination (Pew Forum, 2008), 95% say they believe in God or a higher power, and 87% report that they go to church regularly (Gallup, 2002). The nature of this religious commitment has been considered to be a central aspect of American culture (Bloom, 1992). It stands in contrast to many western European countries. In Sweden, for example, only 10% of the surveyed population indicates that they believe that religion is important, and only 5% are church attendees (DeMarinis, 2003). Liberalization in the conception of theology, however, continued to develop in the public arena in the twentieth century. Illustrative of this were the views of the highly popular Protestant minister, Norman Vincent Peale (1952), who promoted the idea that spiritual experience can leave one free of a burden-

some sense of sin and who was hospitable to a psychology of redemption.

### SOCIOBIOLOGY

In order to place spirituality in the context of contemporary psychiatry, we can consider its nature from a biological perspective. One aspect of spirituality is an altruistic orientation, particularly when directed at people of like beliefs or cultural background. Because of this, biological phenomena that underlie this pattern of behavior are relevant. A sociobiological perspective can then serve to explain how this aspect of spirituality can be grounded in people's genetic complement.

The sociobiological model was applied by Wilson (1975) to explain the underpinnings of mutuality maintained among members with the same spiritual or religious commitment. Key to understanding this is the concept of reciprocal altruism (Trivers, 1971), which serves to explain how self-sacrifice for others may have become adaptive over the course of evolution, even though such behavior can compromise an individual's ability to survive and procreate. This is explained by the fact that the individual may, through altruistic behavior, protect other related individuals, thereby maintaining their common genetic complement for procreation.

The development of hominid competency to carry out complex behaviors involved in such social interactions is associated with the increase in cortical size that took place over the course of primate evolution. This relationship between enlarged cortical mass and enhanced ability to maintain social groupings is embodied in a "social brain hypothesis" (Dunbar, 1993), which relates this phylogenetic development to the ability to manipulate information about social relationships and to develop the capacity for the language and symbolic thought we see associated with spiritually related traits. This model has also been demonstrated through

mathematical modeling to embody an adaptive advantage in the behavioral strategies based in generosity (Nowak, 2008), which is also associated with spirituality for many people.

Heritability of an inclination toward spirituality/religiosity has also been the subject of twin studies. Kendler and associates (Kendler et al., 2003) determined a relationship between both internalizing and externalizing psychiatric disorders and factors associated with religiosity and a spiritual orientation. Tsuang and associates (2007), in studying members of a twin registry, observed associations between spiritual well-being and health outcomes specific to a psychometrically measured subscale of existential spiritual well-being; they concluded that further research should be undertaken that would distinguish between explicitly religious variables and ones more closely related to the psychological construct of spiritual well-being.

### AFFECTIONAL TIES

Vaillant (2008) has discussed the experience of love as a potential component of spirituality. When this state is associated with a transcendent sense of oneness, it can be considered as one facet of a spiritual experience, and it can be related to a body of physiologic research, as well. One aspect of this is illustrated in the role of oxytocin, which can be produced endogenously or administered experimentally, in the biology of this experience. Oxytocin has been found to be influential in the maintenance of affectional ties. This mechanism was originally observed in lower vertebrates (Insel, 1997), but research on the relationship between physiology and behavior has been extended in experimental studies on human subjects as well, where it has been demonstrated that the administration of oxytocin can lead to an enhancement of behaviors of generosity associated with both altruism and emotional identification

with another person (Zak, Stanton, & Ahmadi, 2007).

Compassion is a related trait, and studies have been conducted to define the brain loci associated with this complex phenomenon. Mirroring behavior, copying another's behaviors while relatedly interacting with them, has been observed in lower primates (Gallese et al., 1996). Its presence in humans has been found to originate in the mirror-neuron system of specific cortical areas (Nishitani et al., 2005). A more abstract counterpart to this, one that relates to the experience of compassion, is the process of mentalizing, namely, the appreciation of the feelings and thoughts of others (Allen, Fonagy, & Bateman, 2008), and studies have been conducted in localizing this trait in specific brain sites as well (Schilbach et al., 2008).

It should be noted, however, that social affiliation can have a malignant effect under certain circumstances. It may draw individuals together in an exclusionary way, generating hostility to outsiders. For example, improved affective status associated with affiliation in a spiritually oriented cult was, in one study, found to be highly correlated with suspicion of outsiders, more so than cohesiveness toward cult members themselves (Galanter, 1978).

### SPIRITUAL EXPERIENCES

Functions localized in specific brain sites may also be related to states associated with phenomena typically ascribed to spiritual experiences, as has been noted in relation to interictal experiences of hyperreligiosity associated with temporal lobe epilepsy (Ogata & Miyakawa, 1998). During electric stimulation undertaken to find epileptogenic foci, it was found that out-of-body experiences (such as seeing one's body in extrapersonal space) were elicited by stimulation of sites at the temporo-parietal junction (Blanke et al., 2002). More complex spiritually related experiences may also be localized, since dream

imagery, like that experienced in spiritually grounded states, can be understood to emerge from certain loci. Hobson, Pace-Schott, and Stickgold (2000) described a model for dream experiences wherein hallucinosis is activated in pons, and affect in limbic sites, while the prefrontal areas responsible for self-awareness and insight are suppressed.

Individuals may vary as well in their physiologic complement relative to their openness to spiritual experience, just as other character traits have been found to be related to a relative balance in neurotransmitter systems. This was ascertained when subjects undergoing PET study relative to central serotonin metabolism were also given a personality inventory. Correlations were found between 5HT<sub>1A</sub> receptor density and scores on a subscale for spirituality, but not on any other scales of the personality battery. In another study (Borg et al., 2003), a relationship was found between subjects' scores on measures of the trait of spiritual transcendence and the density of serotonin 5HT<sub>1A</sub> receptors in specific brain sites. Significant interactions have also been found between encoding for both the transcription factor AP2 and the serotonin transporter, and psychometric measures of the character trait of spiritual acceptance (Nilsson et al., 2007).

### A POSITIVE PERSPECTIVE ON PSYCHOLOGY

The concept of positive psychology (Seligman et al., 2005) has recently gained currency as an approach to enhancing positive, gratifying experiences, rather than emphasis on the relief of psychopathology. It has been associated with the role of a person's spiritual orientation (Vaillant, 2008), potentially reflecting an uplifting of one's sense of meaningfulness and direction in life. There are some interesting examples of studies associated with positive psychology, suggesting how a positive disposition can be related to improved health, from better pul-

monary function (Kubzansky et al., 2002), to increased longevity among older community-dwelling individuals (Duckworth, Steen, & Seligman, 2005). Gratitude is often associated with spirituality, and subjects who participated in a “gratitude” intervention, namely, repeatedly writing about things for which they were thankful, were subsequently found to report feeling better about their lives, and demonstrated more positive affect, than those who wrote on neutral topics (Emmons & McCollough, 2003).

While findings in such studies may result from diverse mechanisms, they do allow for considering a positive disposition from the perspective of an affective state associated with a more meaningful life. One mechanism posited for this is that when such positive emotions are generated, they lend breadth and flexibility to people’s attentional focus and behavioral repertoire, and they improve memory and cooperativeness (Burton & King, 2004). This then facilitates a constructive management of one’s psychological needs and allied health maintenance.

A Jungian approach to spiritual enhancement has important successors over ensuing decades related to the value of spirituality in psychotherapy. This includes the work of Viktor Frankl (1984), who made the search for meaning central to his approach to relieving the burden of symptoms. Abraham Maslow (1964) wrote of a hierarchy of needs that people have, whereby self-actualization can take place after material needs and self-esteem are achieved; ultimately this can be followed by peak experiences--which for some can be spiritual in nature. Allen Bergin (1980) also emphasized the importance of giving voice to a person’s spirituality as a vital part of treatment.

#### UNDERSTANDING PSYCHOPATHOLOGY

The contemporary diagnostic system for mental disorders is derived from an ap-

proach elaborated by Emil Kraepelin for schizophrenia (1902). Mental illness is considered in terms of discrete, observable, or measurable symptoms, which can then be assembled into empirically defined categories. This Kraepellean system of nomenclature parallels approaches employed throughout biomedicine and has resulted in defining a given psychopathologic disorder on the basis of a clinician’s observations, laboratory studies, and family lineage that distinguish it from other conditions. In contemporary biomedicine, this is complemented by a cognitive behavioral approach, itself based on discrete and measurable units, representing an attempt to remove subjectivity and motive from the understanding of human actions. A further attempt at empiricism, based on endophenotypes, intermediaries between a genetic moiety and a distal behavior pattern, has also been proposed as a basis for formulating diagnoses. Such approaches, although methodologically sound, may result in a system of fragmentary phenomena, rather than one that reflects the nature of personal experience within respective cultures. This leaves psychiatry vulnerable to the critique that its nomenclature ignores the social and contextual issues that frame behavior.

An entirely different approach is illustrated in the writings of William James (1929), a contemporary of Kraepelin, who wrote of the limitations of “medical materialism that finishes St. Paul by calling his vision on the road to Damascus a discharging lesion of the occipital cortex” and “snuffs out St. Theresa as a hysteric.” This is compatible with the attitudes common in most cultures where religion and spirituality impact profoundly on people’s world view, and how they understand the emotional problems they encounter. It is evident even in the United States, where 87% of the population indicate that religion is “important” in their daily lives (Gallup, 2002), and is therefore an issue clearly bearing on their thinking and behavior, and ultimately on manifestations of psychopathology.

## THE DIAGNOSTIC SYSTEM

As developed in its current format, the Fourth Diagnostic and Statistical Manual of the American Psychiatric Association (1994) includes an Appendix that points out the role of cultural formulation as a supplement to its multiaxial diagnostic assessment, but it makes only limited mention of the cultural context of behaviors in the diagnostic criteria themselves. Given an emerging body of empirical research that can be understood to bear on this issue, as discussed above, such as the physiology of spiritually oriented personality traits and somatic localizations of out-of-body experiences, consideration could be given to a greater emphasis on spiritually related issues.

Some possible modifications in the text of the DSM diagnostic categories illustrate the options that exist for addressing the intersection between manifest behavior and spirituality. For example, some behaviors included as diagnostic criteria within the DSM structure may emerge in response to experiences associated with membership in an intensely affiliative spiritually oriented or cultic group. These behaviors may be incorrectly construed as pathologic, although they may be normative in such groups. Descriptions of a number of the diagnoses in the DSM could be qualified accordingly. The diagnostic criteria for shared psychotic disorder (297.3), for example, stipulate the clinical picture that "is not due to the direct physiological effects of a substance." To this could be added: "nor from a consensual belief system of a religious movement." The DSM provides an example of dissociative disorders not otherwise specified (300.15): "States of dissociation that occur in individuals who have been subjected to periods of prolonged and intense coercive persuasion." To this could be added, "Such states may take place in the context of intense spiritual experience, but should not be termed pathologic."

The following material is included in the narrative preceding the diagnostic criteria

for substance abuse: "The person may continue to use the substance despite a history of undesirable, persistent or recurrent social or interpersonal consequences," to which could be added, "This aspect of substance abuse should be distinguished from difficulties encountered with established authorities by members of a religious group whose ritual practice employs substance use (e.g., culture-bound use of agents like khat or peyote)." With regard to remission of substance dependence, "The following specifiers apply if the individual is on agonist therapy or in a controlled environment." To this could be added, "or in ongoing attendance at a spiritually oriented Twelve-Step, or abstinence-oriented religious group."

## SYMPTOM RELIEF AND TRANSCENDENT FAITH

Much work remains to be done in elucidating a relationship between spiritually related interventions and positive psychiatric outcomes. In a literal sense, prayer for others was subjected to a controlled study to ascertain whether it could affect illness in other people. Benson and associates (2006) compared the outcome of coronary bypass patients for whom others conducted intercessory prayers to those for whom prayers were not carried out, and found that prayer itself was not associated with any difference in outcome. More generally, Sloan, Bagiella, & Powell (1999) prepared a careful review illustrating the uncertain relationship between religiously grounded interventions and health outcome. They also observed that, although religious and spiritual activities provide comfort in the face of illness, psychiatrists must be careful to avoid introducing their own related biases into a clinical situation.

There are, however, issues that suggest a role for belief and faith in relation to treatment for psychological aspects of illness. Interventions that entail a placebo effect-reliant on belief in the effectiveness of an in-

active agent--are regularly seen in psychiatric and general medical practice. Illustrative of this is the degree to which placebo antidepressants have been found to be relatively effective compared to an active drug (Walsh et al., 2002), essentially because of the faith of the patient (and often the clinician) in the presumed impact of the substance administered.

The role of placebos is reflected in their widespread use by clinicians. Fifty-seven percent of internists polled in one large-scale study reported prescribing for placebo effect in one form or another (Tilburt et al., 2008). The value of such belief for psychiatric disorders among the general public is illustrated in the widespread acceptance of alternative medical techniques, prayer, and meditation in particular, in coping with anxiety and depression (Kessler et al., 2001). The physiologic mechanisms underlying the relationship between such faith in the transcendent and its positive effect on psychiatric outcome merit further investigation. There are, however, illustrative physiologic studies that have explored this issue, such as one that illustrated the nature of changes in brain function during placebo treatment for depression (Leuchter et al., 2002), and another on the relative roles of opioid and dopaminergic activation with placebo administration (Scott et al., 2008).

Our own studies on the impact of cultic spiritual commitment on symptom relief among enrollees in new religious movements can also help in understanding how spirituality can impact psychiatric disorder. We conducted repeated surveys of members of one such group during induction and ongoing membership, and we found that the degree of acceptance of the beliefs professed in the group, and fealty for other members they experienced, were each contributory to their symptoms of anxiety and depression. Furthermore, both those variables were inversely related to the decrease in affective status caused by specific difficulties adher-

ents encountered over the course of membership. Based on these findings, a "relief effect," namely, a decrease in distress symptoms relative to the intensity of affiliativeness based on spirituality, could be posited. This suggests that under the right circumstances, the acquisition of a spiritually based commitment can have a positive effect on diminution of certain psychiatric symptoms (Galanter, 1990).

The experience of symptom relief in a cohesive, spiritually oriented group setting is also illustrated in a context more closely allied with conventional psychiatric care. Alcoholics Anonymous is a self-designated spiritual fellowship, as underlined in both its literature and as emphasized by long-standing members. Altruism toward other members, which can be seen as one aspect of spirituality, is a key element in the Twelfth Step of the program, and a stage toward which adherents are expected to aspire.

The AA program has been found to have effectiveness comparable to that of involvement in professionally managed cognitive behavioral approaches (Ferri, Amato, & Davoli, 2006). Additionally, in one study, Moos, Moos, and Andrassy (1999) compared a group of treatment programs oriented toward a cognitive behavioral approach and ones oriented toward Twelve-Step-based recovery, and found the latter to show a more positive outcome. On the level of professionally grounded individual counseling, in a large-scale federally funded Project MATCH (1998), the outcome for clinicians who referred patients to Twelve-Step programs was equally as positive as that for those who provided cognitive-behavioral or motivational approaches. Zemore (2007) studied substance-abusing patients treated in residential programs and found that increases in Twelve-Step involvement from baseline to follow-up predicted a greater likelihood of total abstinence and that this relationship was further explained by measured increases in the patients' spiritual orientation.

TABLE 1. Two Perspectives on the Biopsychosocial Model

		(a) Contemporary Psychiatric	(b) Spiritual
Underpinnings	19th century Origins	Logical positivism	Religious
	Early 20th century	Kraepelin	James, Jung
	Late 20th century	Feighner criteria	Actualization therapists, AA
Application	Data sources	Observed	Subjectively experienced
	Mechanisms	Endophenotypes	Need for meaning
	Elaboration	Physiologic	Self-awareness, altruism
Clinical	Diagnosis	DSM	Personal exploration
	Goal	Relief of pathology	Personal renewal
	Intervention	Pharmacotherapy, CBT	Positive psychology, spiritual renewal

### DISTINGUISHING BETWEEN TWO PERSPECTIVES

The potential role for spirituality within the domain of clinical practice can be clarified by drawing a distinction between two different perspectives. One is the approach characteristic of contemporary psychiatry and the other assumes that issues important to people's emotional lives can be understood from a spiritual perspective. Table 1 is designed to illustrate this distinction, as discussed below.

(a) The Contemporary Psychiatric Perspective. Logical positivism is an approach to science that assumes that only phenomena which can be observed and measured belong in the domain of science. This nineteenth-century model, widely applied in the physical sciences, influenced the framing of the Kraepelinian approach to psychiatric nosology. This was articulated in the Feighner criteria for diagnosis (Feighner et al., 1972) that underlay the conception of the current DSM format. It has further resulted in the elaboration of a physiologically based approach to understanding mental functions, in which endophenotypes are seen as the nexus between genetic complement and behavior. Relief of psychopathology thereby is the goal of intervention.

(b) The Spiritual Perspective. This approach, on the other hand, was articulated

by James and Jung, influenced by religious philosophy. It was subsequently inherent in the models developed by therapists oriented to self-actualization like Victor Frankl and Abraham Maslow, and in the movement of Alcoholics Anonymous. From this perspective, subjective experience is directed at meaningful personal goals, and an exploration of one's own values and purpose in life. In many respects, contemporary positive psychology reflects aspects of this approach, in that it is geared to enhancement of one's experiences, rather than only relieving psychopathology.

### INTERVENTION IN THE SYSTEM OF PSYCHIATRIC CARE

The successful introduction of pharmacologic treatments for psychiatric disorders over recent decades has played a role in a decline in use of psychotherapy by psychiatrists. Polling of psychiatrists has shown this, notably in a decrease by half in the number of psychiatrists who provide some measure of psychotherapy for all their patients (Mojtabai & Olfson, 2008). Additionally, an increasing reliance on managed medical care has led to clinicians having less time to speak with each patient, and likely less time to explore patients' spiritual needs. Psychiatrists, in fact, based on survey data, were

found to be more likely to self-designate as non-religious than other physicians (43% vs. 57%), and more likely to indicate that they did not believe in God (35% vs. 23%) (Curlin et al., 2007). This leaves the field of psychiatry with a growing challenge regarding the option of integrating spiritually related issues into treatment. In general hospital facilities, at least, patients usually have access to religiously grounded spiritual counseling, as approximately 85% of these facilities employ chaplains, and some 20% of all hospital patients receive a chaplain's visit (Flannelly, Galek, & Handzo, 2005). This option, however, is not readily available to psychiatrists in outpatient office settings.

Many psychiatric patients do present certain needs in relation to spirituality--

and problems with it as well--and the value of psychiatric intervention based on an acknowledgement of patients' spiritual needs has been explored. Approaches to introducing such issues into mental health care have been described, as by Josephson and Peteet (2004). There has been one report on a professionally led therapy group in which psychiatric patients dealt with spiritual issues as part of their treatment and in which the author described both her own experience of the group and that of her patients (Sageman, 2004).

On the basis of our clinical observations, my colleagues at New York University and I undertook a series of studies at Bellevue Hospital designed to ascertain the relevance of spirituality to patients on our dual diagnosis psychiatric and primary care services. This entailed development and standardization of a scale to measure the degree to which patients were invested in a spiritual orientation and then to assess their relative interest in the importance of spirituality to their recovery from illness. We found that the patients' spiritual orientation was greater than that of the staff that treated them. In further psychometric testing, we found that patients viewed spirituality as more important to their recovery than did psychiatric trainees and staff, and that the importance

of spirituality to patients was greatly underestimated by the trainees and staff (Galanter et al., 2007).

Given these findings, we developed a program to impact on the culture of training in this teaching hospital (Galanter et al., 2009, in press). We introduced psychiatric residents to techniques for exploring their own orientation toward spirituality and trained them to introduce related questions over the course of evaluating their patients. Video illustrations of the application of these questions with specific patients are presented as part of a series of seminars on cultural sensitivity. We further initiated discussion groups, co-led by residents and staff on the clinical units, in which patients participate to discuss how they can draw on their spiritual resources to cope with illness. The approach was applied first in the primary care clinic and subsequently in inpatient and outpatient psychiatry. We have presented elsewhere the characteristics of participants in this group program, the format of the sessions, and themes that arose in group discussions (Galanter et al., 2008).

## CONCLUSION

This paper has limitations in demonstrating the relevance of spirituality to contemporary psychiatry. Psychiatry is a discipline increasingly reliant on independently observed and measurable phenomena. Spirituality, on the other hand, is a construct that is difficult to define operationally and is accessible to clinicians only by recourse to subjective reports from patients queried on the issue. Until now, clinicians have generally not addressed this latter issue, and because of this, there is no robust body of experience to illustrate its role in care. More detailed elaboration would be necessary to validate the coherency of the disparate findings presented here.

Nevertheless, as initially noted, because spirituality is a latent construct, it has

to be considered from a diversity of its component dimensions. In introducing this approach, a presentation has been made of its emergence in the contemporary context and its place within a body of biologic and psychological research. Illustrations have also been given on how it can be introduced into diagnosis, treatment, and training. Future research may serve to better define mechanisms that underlie the integration of such diverse findings. Relevant clinical experience

needs to be developed and tested by examining the outcome of modalities that help patients draw on their spiritual resources in coping with illness. If results of such efforts were to prove successful, clinicians would be able to improve on the outcome of biopsychosocially oriented practice by integrating this construct into the way they frame the care they offer.

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