

Spirituality, Evidence-Based Medicine, and Alcoholics Anonymous

Spirituality is defined by those deeply felt beliefs that give meaning to a person's life. Although spirituality can be embodied in a religious orientation, it can also be understood as commitment to broader ideals or to the welfare of others. While this concept is familiar to many psychiatrists and to our patients, it is generally not understood on the basis of empirical research. Recent psychological and biomedical findings, however, shed light on the mechanisms that underlie its relevance to clinical psychiatry. Furthermore, related research can be useful in understanding the role spirituality plays in the scientifically grounded clinician's work. For example, Alcoholics Anonymous (AA), a self-designated "spiritual fellowship," is a useful adjunct to the practice of evidence-based addiction medicine. Evidence is developing for a specific role of spirituality in its effectiveness.

A Biopsychosocial Perspective

As a social phenomenon, spirituality has become a focus of interest in the United States concomitant with a decline in sectarianism and with a recognition of a commonality of purpose across religious and ethnic groups. As evidenced in findings on a national probability sample, the large majority of Americans endorse that they are "spiritual," more than respond that they are "religious" (1).

Spirituality has been paid little attention in the contemporary psychiatric literature. Our modern approach to psychiatric research is derived from the positivist orientation of the physical sciences, which is based on readily observed phenomena. This operates on multiple levels, from clinical practice, as in the Kraepelinian perspective on diagnosis, to the conceptual level, as in the study of endophenotypes. This mode of thinking also determines which treatment modalities are studied and de-emphasizes personal and existential issues.

In 1903, the psychologist William James, in his classic psychological work *The Varieties of Religious Experience*, presented a different perspective, by emphasizing the validity of subjective, spiritually grounded experiences. He criticized "medical materialism that finishes St. Paul by calling his vision on the road to Damascus as a discharging lesion of the occipital cortex" and "snuffs out St. Theresa as a hysteric" (2). Although his orientation was superseded in the domain of research by behavioral psychology and physiology, it does point to an alternative and heuristically valuable way of understanding certain mental phenomena. Given the public's similar positive views of spirituality, it also suggests why spiritually oriented approaches to illness may be popular as alternative and complementary treatments (3).

There is an emerging recognition of the role of spirituality and religion in the clinical context, reflected in recent openness to considering this subjectively experienced commitment. Attention to spirituality is now required by the Joint Commission on Accreditation of Healthcare Organizations as part of psychiatric assessment, and it was recently added to the training requirements for psychiatric residencies. Additionally, psychometric measures for studying spiritually related issues such as meaningfulness, gratitude, and hopefulness now allow for empirically oriented approaches to evaluating these aspects of quality of life important to recovery from psychiatric illness.

The biological underpinnings of a spiritual orientation are suggested by some recent studies on clinical correlates of psychometrically measured traits. For example, new findings suggest an association between serotonergic activity and an inclination toward spirituality. In one study, subjects completed a personality inventory and were also ex-

amined with positron emission tomography to ascertain the density of serotonin 5-HT_{1A} receptors in various brain sites. Among seven temperament and character inventory dimensions, the only one significantly associated with the measured binding potential of these receptors was a subscale of spiritual acceptance (4). In another study, significant interactions were found between genes encoding for both transcription factor AP2 β and the serotonin transporter and measures of the character traits of self-transcendence and spiritual acceptance (5).

Research in twin registries illustrates how religious attitudes and spiritual well-being can be studied in relation to the risk of certain psychiatric disorders. One group of investigators (6) developed a series of items assessing various aspects of religiosity and applied them to a large sample of twins for whom lifetime risk of psychiatric disorders had been assessed. They observed an association between variables reflecting religiosity and reduced risk of both internalizing and externalizing disorders. In a different sample of twin pairs, investigators found a positive association between subscale scores on existential well-being and a reduced prevalence of DSM-III-R diagnoses of depression and substance use disorders (7).

Thus, one outcome of a resurgence of interest in spirituality is emerging research that attempts to discover its biological underpinnings. Although James warned that such efforts can trivialize the spirituality of saints, they provide a deeper context in which to consider spiritually based treatments as part of evidence-based clinical practice.

Spirituality and Alcoholics Anonymous

Alcoholics Anonymous is an example of a movement directed at a psychiatric disorder that espouses a regimen based on spirituality. Its widespread adoption, with over 2 million members worldwide, warrants attention to understanding its putative value in addressing addictive behaviors. It also raises some important questions for contemporary psychiatry. Are there biopsychosocial mechanisms associated with the spirituality embodied in AA that are amenable to empirical study? What place does this spiritually oriented complementary approach have within the domain of evidence-based medicine?

Attempts to assess the impact of AA are hampered by the requirement of anonymity for its members, and there have been no experiments with random assignment that have conclusively evaluated its effectiveness (8). Additionally, many attendees depart after initial encounters with the program, limiting its applicability. Nonetheless, a number of large field studies have shown that professionally treated patients who also participate in AA benefit from this time they devote to the recovery process. For example, a large sample of people entering ambulatory alcoholism treatment for the first time from referral or detoxification centers were evaluated at intervals over 16 years. Multivariate analyses of the data indicated that longer participation in AA makes a positive contribution to both alcohol and social function outcomes independent of the quantity of treatment these patients experienced (9).

Attendance at AA meetings appears to be instrumental in achieving a positive effect and not just reflective of greater antecedent motivation for recovery. In one large-scale study of alcohol-dependent male veterans initially treated as inpatients, their AA attendance within the first year after admission was found to predict lower alcohol-related problems at the 2-year follow-up. This effect was independent of their previously measured motivation for change, suggesting that AA itself plays a causative role in reducing drinking (10).

Spirituality in AA membership seems to play a role in promoting remission of alcoholic symptoms. Subjects treated at one of the study sites in the federal Project MATCH study on alcoholism treatment were evaluated 3 years after their initial treatment. Their scores on measures of spirituality within AA at that 3-year point were predictive of a positive outcome at 10 years (11). In another study, alcoholics who entered treatment in a number of community-based programs were evaluated. Among patients who then at-

tended AA, those who reported having a spiritual awakening were over three times more likely to be abstinent 3 years later than those who did not have such an awakening. Significantly, in this latter study, greater antecedent religiosity was not associated with this better outcome (12).

Recommendations

Since the AA fellowship can aid in promoting recovery from alcoholism, it can be of value to patients, in particular because professionally conducted, long-term follow-up for addictive disorders is constrained by limitations on third-party insurance coverage. Learning about 12-step facilitation (13), an approach to helping patients become engaged in the initial three of the 12 AA steps, is one way for psychiatrists to improve their ability to refer patients to the fellowship. Further research on the mechanisms underlying AA's effectiveness should also be pursued to understand how it promotes recovery and to make the best use of the fellowship with selected patients. For example, social support, as well as spirituality, has been found to mediate AA's effectiveness. Success in clarifying the mechanisms underlying the respective roles of these two factors may suggest approaches to their differential application. Ultimately, this research may rely on the emerging biological understanding of spirituality. Such research may also have value for understanding how a variety of other psychosocial modalities promote change and for improving on their effectiveness as well (14).

Although a spiritual orientation may have a positive impact on patient care, it can also be deleterious when it generates conflict within individuals or deters them from seeking empirically grounded treatment from qualified professionals. Nonetheless, a spiritual commitment that is well integrated into ongoing medical care may help many patients fulfill their treatment goals.

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