

## Update 56

### DOES A PATIENT'S PERSONALITY, COPING STRATEGIES, AND/OR SOCIAL SUPPORT NETWORK INFLUENCE THEIR USE OF CHIROPRACTIC?

Although patterns of utilization of complementary and alternative medicine (CAM) in the community have begun to be described, few studies have addressed the relationships between psychological factors and the use of CAM.

It has been suggested that three main features of previous studies have limited our understanding of the roles of psychological factors in CAM use in the community: (a) studies using convenience samples drawn from treatment settings have had limited generalizability; (b) studies of community-based samples have focused on demographic factors and medical conditions and have not explored psychological factors; and (c) few studies have assessed the predictors of specific types of CAM use.

The aim of a recent study (1) was to examine the associations between CAM use and personality, coping strategies, and perceived social support in a representative sample of adults in the United States.

Data were drawn from the Midlife Development in the United States Survey (MIDUS), a representative sample of 3,032 adults aged 25-74 in the US population. The authors analyzed use of acupuncture, biofeedback, chiropractic, energy healing, exercise/ movement therapy, herbal medicine, high-dose megavitamins, homeopathy, hypnosis, imagery techniques, massage, prayer/spiritual practice, relaxation/mediation, and special diet within the last year.

Respondents were given a list of adjectives representing aspects of personality and asked to use a four-level Likert-scale to describe how much of the time (all, most, some, or a little) each word described them. The adjectives were interpreted as comprising five traits or scales: *Agreeableness* (helpful, warm, caring, softhearted, sympathetic) five-item scale; *Openness to experience* (creative, imaginative, intelligent, curious, sophisticated, adventurous) seven-item scale; *Conscientiousness* [organized, responsible, hardworking, (not) careless] four-item scale; *Extroversion* (outgoing, friendly, lively, active, talkative) five-item scale; and *Neuroticism* (moody, worrying, nervous, (not) calm) four-item scale.

Multiple logistic regression analyses were used to evaluate the association of personality, coping strategies (primary and secondary control), and perceived social support and strain with CAM use, controlling for sociodemographic factors, medical care access, and physical and mental disorders.

Overall, 54% of the sample ( $n = 3,032$ ) reported having used any kind of CAM in the past 12 months.

Higher levels of openness were positively associated with the use of all types of CAM except chiropractic. Extroversion negatively correlated with the use of mind-body therapies. From a practical point of view, extroverted people may be more likely than others to reject therapeutic recommendations or to be non-adherent to mind-body interventions in trials or treatment.

The authors hypothesized that coping style might also be associated with CAM choices. Specifically, they hypothesized that those who exercise primary control, which involves modifying the environment, and those who exercise secondary control, which involves modifying the self, might make different choices among CAM modalities. Adjusting for age and ethnicity, the authors observed that those with high levels of primary control were significantly less likely to use all types of CAM, except for chiropractic, than those with lower levels. On the other hand, secondary control appeared to be associated with use of mind-body interventions and alternative medical systems. The authors propose that assessing individual differences in coping strategies may help in understand how to better tailor patient education.

The effects of social support or strain from friends, family, and partner on the use of CAM are important because they are amenable to psychological interventions. The authors found that social support from friends was associated with the use of most CAM modalities such as mind-body interventions, manipulative body-based methods, and alternative medical systems.

White respondents were about twice as likely as nonwhites to use manipulative/body-based methods.

Perceived partner strain was positively associated with the use of biologically based therapies, and family strain was positively associated with use of chiropractic.

This study is the first to document a significant association between specific domains of personality, coping strategies, and social support, and the use of CAM among adults in the general population. Understanding the relationships between psychological factors and CAM use may help researchers and health care providers to address patients' needs more effectively and to achieve better adherence to recommendations.

**ASRF Update editor's comments:** The above paper is of considerable interest when reflected upon in light of two other recent publications that I have sent to you by way of ASRF Updates. One of those papers, by Alan Breen DC, PhD (2), found that only 27% of the improvement experienced by chiropractic patients after care could be explained by changes in pain/physical parameters. Amazingly, 73% of the improvement had to be attributed to undefined factors. In another study (3), co-authored by Robert Mootz DC, carried out among injured workers who had ongoing follow-up care after their initial treatment, satisfaction with interpersonal and technical aspects of care were strongly and positively associated with overall treatment experience ( $p < 0.001$ ), such that as a group the satisfaction measures explained 38 percent of the variance in treatment experience.

In summary, these studies suggest that,

1. **A chiropractic patient's improvement involves much more than just pain relief;**
2. **An injured workers experience of treatment is strongly and positively associated with satisfaction with interpersonal and technical aspects of the care received, and**
3. **There is a significant association between a patient's personality, coping strategies, and social support, and that patient's decision to seek out, and follow the advice of, a chiropractor.**

#### Reference:

1. Honda K, Jacobson JS. Use of complementary and alternative medicine among United States adults: the influences of personality, coping strategies, and social support. *Preventive Med* 2005; 40:46-53.
2. Breen A, Breen R. Back pain and satisfaction with chiropractic treatment: what role does the physical outcome play? *Clin J Pain*. 2003; 19:263-8.
3. Wickizer TM, et al. Patient satisfaction, treatment experience, and disability outcomes in a population-based cohort of injured workers in Washington State: implications for quality improvement. *Health Serv Res*. 2004; 39:727-48.