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Patient Risk-Taking Attitude and the Use of Complementary and Alternative Medical Services

ROLAND STURM, Ph.D.

ABSTRACT

Objectives: Study users and nonusers of complementary and alternative medicine (CAM) with respect to their attitude toward risk.

Settings and subjects: National household telephone survey fielded in the United States in 1998 ($n = 9,585$).

Dependent variable: CAM use in previous year.

Results: Patients of CAM practitioners consider themselves more likely to take risks than the average person (odds ratio [OR] 2.47, 95 confidence interval [CI] [1.91, 3.19] compared to the general population). Risk attitude is as strong (or even stronger) a predictor of visits to CAM providers than the main sociodemographic predictors of female gender, higher education, or middle age. Individuals using only self-administered CAM treatment rate themselves as being relatively more cautious (OR, 1.08; not statistically significant from the general population).

Conclusions: Patients of CAM practitioners perceive themselves as risk taking, whereas patients that only rely on self-administered CAM treatment rate themselves not differently from the general population. This major difference within the group of CAM users and compared to the general population has not been studied before.

INTRODUCTION

A significant proportion of the population of the United States has used some form of complementary and alternative medicine (CAM) and public demand is strong and growing (Paramore, 1997; Eisenberg et al., 1998). It is well known that that CAM users differ from nonusers in sociodemographic and health characteristics. In particular, CAM use is more common among women, less common among blacks, more common among people aged 35 to 49 years than among younger or older people, more common among more educated and

higher income individuals, and more common in the West than in other areas of the United States (Eisenberg et al., 1998; Sturm and Unutzer, 2000). Almost all CAM users also received conventional medical care and CAM users have more chronic conditions than the general population and are more likely to have mental health problems (Eisenberg et al., 1998; Druss and Rosenheck, 1999).

However, CAM users and nonusers may also differ in less observable characteristics and attitudes about health care. This brief report analyzes the relationship between an individual's attitude toward risk taking and the use of CAM

using a U.S. national household survey. No prior research on this relationship is available.

MATERIALS AND METHODS

We analyzed data from Healthcare for Communities (HCC), a national household phone survey fielded in 1997/1998 (Sturm et al., 1999). HCC reinterviewed adult participants of the Community Tracking Study (CTS), on average 15 months after their CTS interview. The CTS sample is representative of the U.S. civilian, noninstitutionalized population (Kemper et al., 1996). The CTS included a sample clustered within 60 randomly selected U.S. communities, as well as a geographically dispersed sample.

HCC selected 14,985 from a random sample of 30,375 CTS telephone respondents for follow-up. After discarding interviews that were conducted with respondents who may have been ineligible, HCC completed 9,585 interviews of 14,985 attempts, approximately a 64% response rate. This response rate is comparable to other recent general population surveys on related issues, such as the Behavioral Risk Factor Surveillance System (BRFSS) (63.5% response rate) or the Americans' Changing Lives survey (68%). The final sample includes between 70 and 250 respondents from each of the 60 communities that were part of the CTS, and approximately 1,300 persons from the geographically dispersed national sample. In these analyses, the combined sample is used, and weights were derived based on the inverse of the probability of selection, nonresponse, and nontelephone households.

MEASURES

The survey asked whether an individual used any alternative or folk medicine: In the past 12 months, did you use any alternative or folk medicine, either from a practitioner or on your own? Alternative medicine includes therapies such as homeopathic medicine, acupuncture, massage therapy, herbal medicine and spiritual healing. Other wording may include "nonstandard" or "nonconventional." Note

that the survey mentioned explicitly homeopathic medicine, acupuncture, massage therapy, herbal medicine, and spiritual healing, but did not prompt for the use of chiropractors, which results in lower CAM estimates than studies that consider chiropractors to be CAM providers and explicitly ask about the use of chiropractors (Sturm and Unutzer, 2000). This was intentional because chiropractors have become mainstream and insurance coverage of chiropractors is mandated in more than 40 states. This is not the case for any other CAM modality. Among those using some CAM, the survey asked whether the individual saw a CAM provider. Those without visits to CAM providers are classified as self-users. Due to time limitations, there were no further questions distinguishing different CAM modalities, which is an important limitation of this study. Comparing 300 patients, Kelner and Welman (1997) reported some differences across patients of different CAM providers, although the most striking social differences were between CAM patients and patients of family physicians.

The individual's attitude to risk was measured as strong agreement, agreement, indifference, disagreement, or strong disagreement with the statement: "I'm more likely to take risks than the average person." To control for confounding factors, three logistic regression models were estimated with any CAM use, some visits to a CAM provider, or self-administered CAM only as the dependent variables. Other variables that were shown in prior research to predict utilization were included *a priori* and there was no further selection of regressors. Risk attitude is the main explanatory variables of interest and Table 1 presents the odds ratio of CAM use for individuals strongly agreeing or agreeing that they are more likely to take risks (with individuals indifferent or disagreeing as the reference group). Additional variables include age, female gender, years of schooling, log of family income, race, census region, a count of chronic medical conditions, and psychologic distress as measured by the five-item Mental Health Inventory (Wells et al., 1996). Excluding missing values, there are 9,154 observations.

TABLE 1. ODDS RATIO USING CAM BY PATIENT ATTITUDE TO RISK

	<i>Any CAM use</i>	<i>Visits to CAM provider</i>	<i>Only self-administered CAM</i>
Strongly Agree: Take more risks than average person	1.72 ^b [1.33, 2.23]	2.47 ^b [1.92, 3.19]	1.08 [0.77, 1.51]
Agree: Take more risks than average person	1.27 ^b [1.07, 1.51]	1.44 [0.98, 2.10]	1.10 [0.80, 1.53]
Female	1.60 ^b [1.30, 1.99]	1.97 ^b [1.50, 2.57]	1.24 [0.93, 1.67]
Young	0.82 ^b [0.69, 0.98]	0.89 [0.71, 1.12]	0.81 [0.64, 1.03]
Old	0.45 ^b [0.34, 0.58]	0.48 ^b [0.37, 0.63]	0.47 ^b [0.35, 0.65]
Log (Family Income)	0.96 [0.89, 1.04]	1.06 [0.92, 1.23]	0.92 ^a [0.85, 0.98]
Years of Schooling	1.18 ^b [1.14, 1.24]	1.15 ^b [1.09, 1.21]	1.18 ^b [1.14, 1.23]
Nonwhite	0.83 [0.65, 1.07]	0.86 [0.66, 1.11]	0.85 [0.63, 1.16]
Private Insurance	1.45 ^b [1.14, 1.83]	1.51 ^b [1.16, 1.96]	1.30 [0.91, 1.86]
No Insurance	1.86 ^b [1.28, 2.70]	1.72 ^b [1.21, 2.44]	1.73 [0.99, 3.03]
West	1.92 ^b [1.24, 2.96]	1.47 [0.85, 2.54]	2.11 ^b [1.53, 2.98]
South	0.94 [0.60, 1.47]	0.76 [0.42, 1.38]	1.16 [0.84, 1.58]
Midwest	0.90 [0.63, 1.30]	0.67 [0.34, 1.32]	1.18 [0.96, 1.47]
Number of chronic conditions	1.14 ^b [1.07, 1.20]	1.18 ^b [1.09, 1.29]	1.06 [0.99, 1.14]
Mental Health Index	0.32 ^b [0.22, 0.46]	0.53 ^a [0.30, 0.94]	0.28 ^b [0.16, 0.49]

Note: $n = 9,154$, including 1,570 CAM users, 752 users of CAM providers, and 818 self-care users. Reference region is Northeast, higher mental health index means better health. 95% confidence intervals in brackets.

^aSignificant at $p < 0.05$.

^bSignificant at $p < 0.01$.

RESULTS

Descriptive comparisons show that 30% of patients of CAM providers strongly agree with the statement that they are more likely to take risks than the average person, compared to 16% of the general population. The risk attitude of individuals using self-administered CAM only (no visits to CAM practitioners) is similar to the general population.

Table 1 controls for other factors and provides a slightly different presentation of the same result. Individuals who perceive themselves as risk takers are significantly more likely to be users of CAM. Table 1 also shows the effect of other sociodemographic and health factors, which largely confirm prior research. Female gender, for example, is the sociodemo-

graphic factor with one of the strongest effect in terms of odds ratio on CAM use. Nevertheless, the odds ratio for CAM use is higher for individuals who strongly agree with the risk statement (relative to risk averse individuals) than for women (relative to men). The odds ratio of risk attitude is higher when studying CAM treatment by a practitioner, but disappears when studying self-administered CAM.

DISCUSSION

The use of complementary and alternative medicine (CAM) has grown substantially in the last 10 years, largely due to an increase in the number of people seeking alternative therapies, rather than more intensive use by prior

patients (Eisenberg et al., 1998). Nevertheless, CAM (especially when excluding chiropractors) remains far from mainstream and this analysis shows that patients of CAM practitioners perceive themselves as much more risk taking than the general population. Even among CAM users, those that perceive themselves as being more cautious tend to rely on self-administered CAM treatment, most likely herbal medicine.

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REFERENCES

- Druss BG, Rosenheck RA. Association between use of unconventional therapies and conventional medical services. *JAMA* 1999;282:651-656.
- Eisenberg DM, Davis RB, Ettner SL, Appel S, Wilkey S, Van Rompay M, Kessler RC. Trends in alternative medicine use in the United States, 1990-1997. *JAMA* 1998;280:1569-1575.
- Kelner M, Wellman B. Who seeks alternative health care? A profile of the users of five modes of treatment. *J Altern Complement Med* 1997;3:127-140.
- Kemper P, Blumenthal D, Corrigan JM, Cunningham PJ, Felt SM, Grossman JM, Kohn LT, Metcalf CE, St. Peter RF, Strouse RC, Ginsberg PB. The design of the Community Tracking Study: A longitudinal study of health system change and its effects on people. *Inquiry* 1996;33(Summer):195-206.
- Paramore LC. Use of alternative therapies: Estimates from the 1994 Robert Wood Johnson Foundation National Access to Care Survey. *J Pain Symptom Manage* 1997;13:83-89.
- Sturm R, Gresenz CR, Sherbourne CD, Minnimum K, Klap R, Bhattacharya J, Farley D, Young AS, Burnam MA, Wells KB. The design of Health Care for Communities: A study of health care delivery for alcohol, drug abuse, and mental health conditions. *Inquiry* 1999;36:221-233.
- Sturm R, Unutzer J. State legislation and the use of complementary and alternative medicine. *Inquiry* 2000;37.
- Wells KB, Sturm R, Sherbourne CD, Meredith LS. *Caring for Depression*. Cambridge, MA: Harvard University Press, 1996.

Address reprint requests to:

Roland Sturm, Ph.D.

RAND

1700 Main Street

Santa Monica, CA 90407-2138

E-mail: Roland_Sturm@rand.org