

Chinese Medicine Users in the United States Part I: Utilization, Satisfaction, Medical Plurality

CLAIRE M. CASSIDY, Ph.D.

ABSTRACT

Objectives: Chinese medicine is growing in popularity and offers an important alternative or complement to biomedical care, but little is known of who uses it or why they purchase it. This article reports the first in-depth, large-scale ($n = 575$) survey of United States acupuncture users. **Design:** An anonymous mixed quantitative-qualitative survey questionnaire assessed user demographics, Chinese medicine modalities used, complaints, response to care, other health-care used, and satisfaction with care in six general-service clinics in five states. **Results and Conclusions:** The user demographic picture was of mid-age, well-educated, employed, mid-income patients. They sought care for a wide variety of conditions; top uses were for relief of musculoskeletal dysfunction, mood care, and wellness care. A large majority reported "disappearance" or "improvement" of symptoms, improved quality of life, and reduced use of selected measures including prescription drugs and surgery. Respondents reported utilizing a wide array of practices in addition to Chinese medicine, while also expressing extremely high satisfaction with Chinese medicine care. The evidence indicates that these respondents behave as astute consumers within a plural health care system. Part II (in press) details reasons given for satisfaction and situates respondent attitudes within a larger sociocultural framework.

INTRODUCTION

Chinese medicine,¹ although barely known outside of Asian-American communities before the 1970s, experienced a rapid rise in interest in the United States after James Reston's report in 1971 (Reston, 1971). Today there are

24 accredited schools, and some 10,000 practitioners (National Council for the Certification of Acupuncturists, 1997) who serve an estimated 1 million patients yearly (Culliton, 1997).

Despite rapid growth, and this medicine's promise of providing both an alternative and a complement to biomedicine, little attention has

The Traditional Acupuncture Institute, Inc., Columbia, Maryland.

¹In this article, I use the term "Chinese medicine" as a generic to refer to medical practices that originated in China and have expanded throughout the world; it is also often called "Oriental medicine." By using the term "Chinese medicine" I do not wish to imply that there is a single coherent "system"; rather the term is used pragmatically to refer to diagnostic and therapeutic practices, including primarily acupuncture needling, moxibustion, and Chinese herbal therapy, that are offered by practitioners trained at various schools of "Chinese" or "Oriental" medicine. I do not use the term "traditional Chinese medicine" or "TCM" because these refer to a particular style of practice developed in the post-1949 period in China; many other styles of practice are extant and some were utilized in the clinics reported herein. I use the term "biomedicine" to refer to the form of medicine that is also called "allopathy" and whose primary practitioners earn the MD (or DO) degrees. The values and concepts of biomedicine also underlie the practices of nursing, psychotherapy, physical therapy, and other "mainstream" medical practices in the United States.

been paid to characterizing users or understanding their reasons for purchasing Chinese medicine care, factors relevant to both referral and health-care policy planning. A handful of ethnographic studies (Hare, 1992, 1993; Emad, 1994) have detailed perceptions of small groups of patients. One survey compared users of biomedicine (family practice), chiropractic, and Chinese medicine (Anderson, 1991); another reported user demographic and complaint patterns for a hospital-based alternative medicine clinic (Bullock et al., 1997).

This article reports data from the first in-depth survey of acupuncture users. It was conducted among patients at six large clinics in five states using a mixed qualitative-quantitative written questionnaire format. The study gathered data on the following issues: Who attends these clinics? What complaints do they bring for care? What is their self-reported response to Chinese medicine care? What other forms of health care do they use? How satisfied are they with Chinese medicine care?

The answers to these questions can stand alone as descriptors of utilization, but can also be used to explore why Chinese medicine is popular, an issue that matters both to practitioners, and at the national policy planning level. Thus, it is also important to understand what values cause patients to seek Chinese medicine care in the first place, and what motivates them to continue its use and (usually) pay for it out of their own pockets afterwards.

This article is presented in two parts. In Part I, statistical data are used to describe users in terms of sociodemographics, conditions brought for care, response to care, and satisfaction with care. Additionally, data are presented indicating that users of Chinese medicine often employ a variety of different medicines, and suggest that this use is not merely additive, but selective. Part II analyzes respondent handwritten reports—qualitative data—to identify the characteristics of Chinese medicine care that respondents value and that help explain the high satisfaction ratings reported in Part I. These data indicate that respondents prefer a patient-centered care model, and readily identify with the concept of “holistic” health care, both of which they be-

lieve they receive from Chinese medicine care. These results are especially valuable because both holism and patient-centered care have been recommended nationally to address problems of excessive cost and low patient compliance in biomedicine. In combination, the data from Parts I and II indicate that users of Chinese medicine in the United States are astute selective consumers in a functionally plural national health-care environment.

MATERIALS AND METHODS

The research goal was to characterize Chinese medicine users by gathering descriptive and perceptual data from a sample of patients currently using general service clinics and “whole body” Chinese medicine care. Accordingly, no applied health care hypothesis was tested, no users of specialty clinics or specialty styles of acupuncture care were surveyed, and no effort was made to survey former users of Chinese medicine care.

A mixed qualitative-quantitative questionnaire was developed based on in-depth interviews of 65 current and former acupuncture patients, and two pilot tests (Bernard, 1992; Cassidy, 1994a, 1994b). The quantitative portion of the questionnaire included questions using both check boxes and Likert scales, as appropriate. These questions solicited information on Chinese medicine modalities used, relation to practitioner, sociodemographics, complaints brought for Chinese medicine care, response to care, other forms of health care used in previous 3 months, recall of health-care costs in previous 3 months, and satisfaction with Chinese medicine care. Six quantitative questions solicited additional information in the form of an open-ended question requiring a handwritten answer. The final question (No. 29) invited respondents to “tell their own story” in their own words. All questions that solicited perceptions of Chinese medicine care provided opportunity to report negative as well as positive results and opinions.

Participant clinics were selected according to criteria including providing comprehensive care, location in urban/suburban centers of

Chinese medicine usage, "large" patient flow rate of 80 or more patients per week, staffing by licensed professional Chinese medicine practitioners,² and willingness to participate.

Eight clinics that met the criteria were invited; six agreed to participate. These included two school clinics (Northwest Institute of Acupuncture and Oriental Medicine, Seattle WA; New England School of Acupuncture, Watertown, MA), and four private clinics (Chinese Medicine Works, San Francisco, CA; Gipson Specialty Center, Memphis, TN; Ruscombe Mansion, Baltimore, MD; and The Centre for Traditional Acupuncture, Columbia, MD). The clinics are multipractitioner sites except the Gipson Clinic, which is an orthopedic clinic with one Chinese medicine practitioner on staff.

Clinics scheduled a 14-day collection period to fit their own clinic calendars between January and April 1995. One month prior to start date, patients were informed of the survey via poster display, an invitation to participate from their practitioner, and reminder cards. During the collection period, all nonemergency patients were offered the questionnaire and told that the questionnaire was anonymous, their practitioner would not know their answers, and not completing the questionnaire would not affect their care.

Final sample size for the whole questionnaire was 575, for a response rate of 45.9%. Just over 80% ($n = 462$) of respondents added handwritten comments to their quantitative answers. Available sample size varied by clinic based on design-of-care factors and response rate varied with clinic investment in the survey. Within clinic sites, survey participants did not differ from nonparticipants with regard to sex ratio or the length of time they had used Chinese medicine. Between clinic sites, the two school clinics had a greater proportion of younger and less educated patients, and the Watertown and Memphis clinics had a greater proportion of patients who had received Chinese medicine

care for short periods of time. However, complaint, response, and satisfaction levels did not differ significantly by site, and data from all six sites are combined in this report.

Standard descriptive statistics were developed for the quantitative sections of the questionnaire using SPSS (Statistical Package for the Social Sciences) software (SPSS, 1995). The Ethnograph software (Qualis Research Associates, 1996), was used for qualitative analysis of the pertinent sections. Detail on the process of qualitative analysis is given in Part II.

RESULTS

Sociodemographics of the respondents

Sociodemographic characteristics of survey respondents are summarized in Table 1. More women used Chinese medicine care; highest usage was among people between the ages of 30 and 60; most users self-identify as "white." There were few low-income patients, reflecting the fact that most Chinese medicine patients pay for their care out of their own pockets (although 88% of the sample had reimbursement coverage for biomedical care, only 22% had any for acupuncture care). Respondents were well educated. Of those employed, a majority had professional or technical occupations, and an additional large proportion were self-employed in creative or entrepreneurial occupations.

School sites charge lower fees because they utilize (supervised) trainee practitioners; these sites had significantly more respondents under age 30 ($p < 0.001$), with high school or trade-school educations ($p < 0.04$), in clerical/laborer and unsalaried occupations ($p < 0.001$), with lower incomes ($p < 0.001$), and self-describing as nonwhite ($p < 0.001$; data not shown).

In summary, the demographic picture is of users who are neither children nor elderly, educated, employed, and professional. This pattern is similar to that reported from other clinic-based surveys of alternative medicine users (Bullock et al., 1997; Cassileth et al., 1984; Clinical Oncology Group, 1987; Eisenberg et al., 1993; James et al., 1983; McGinnis, 1991; McGuire, 1988; Thomas et al., 1991; Verhoef et al., 1990).

²All practitioners had been trained in accredited 3 to 4 year acupuncture/Chinese medicine programs, or were current students in such a program, working under the direction of faculty.

TABLE 1. SOCIODEMOGRAPHICS OF 575 CHINESE MEDICINE USERS

| Sample characteristic | Sample N* | Sample percent |
|-------------------------------|-----------|----------------|
| Sex | | |
| Female | 411 | 72.1 |
| Male | 159 | 27.9 |
| Age (years) | | |
| 11-20 | 9 | 1.6 |
| 21-30 | 61 | 10.8 |
| 31-40 | 150 | 26.5 |
| 41-50 | 214 | 37.8 |
| 51-60 | 82 | 14.5 |
| 61-70 | 36 | 6.4 |
| 71-80 | 14 | 2.5 |
| Origin group | | |
| White | 501 | 89.3 |
| Black | 12 | 2.1 |
| Asian | 16 | 2.9 |
| Other | 32 | 5.7 |
| Civil status | | |
| Single | 153 | 26.9 |
| Separated, divorced, widowed | 87 | 15.3 |
| Partnered, not married | 99 | 17.4 |
| Married | 230 | 40.4 |
| Education | | |
| Less than high-school diploma | 8 | 1.4 |
| High-school diploma | 26 | 4.6 |
| Some college, trade school | 117 | 20.6 |
| Bachelor's degree | 127 | 22.3 |
| Some graduate school | 98 | 17.2 |
| Graduate degree | 193 | 33.9 |
| Annual Household Income | | |
| <\$20,000 | 129 | 23.7 |
| \$20,000 < \$40,000 | 132 | 24.3 |
| \$40,000 < \$60,000 | 98 | 18.0 |
| \$60,000 < \$80,000 | 70 | 12.9 |
| >\$80,000 | 115 | 21.1 |
| Occupation | | |
| Professional/technical | 216 | 37.9 |
| Entrepreneurial/creative | 78 | 13.7 |
| Business management, sales | 65 | 11.4 |
| Clerical, service, laborer | 55 | 9.6 |
| Not employed** | 156 | 27.4 |

*Sample total 575; within cells totals may not sum to 575 because of missing answers.

**Includes students 9.5%, retirees 6.7%, homemakers 6.1%, disabled & unemployed 5.1%.

Use of Chinese medicine treatment modalities

Survey respondents ranged from novices who completed the form "anticipatorially" after intake interviews, but before they had received needle treatment (8 respondents or 1.4% of sample), to others who had had years of ex-

perience with Chinese medicine care. The Memphis orthopedic site had proportionately more inexperienced patients (70.0% had received < 3 months of care), while the Baltimore and Columbia sites had proportionately more highly experienced patients (78.1% and 75.0% respectively had received > 1 year of care; $p < 0.0001$).

Ninety-nine percent of respondents had received acupuncture care, 59.7% had received moxibustion (warming of acupuncture sites with mugwort herb *Artemisia vulgaris*), and 35.5% had received Chinese herbs. Disposable acupuncture needles alone were used 85.3% of the time, and reusable needles alone in 8.4% of cases; electroacupuncture was used by 3.5% of the sample, but only in combination with manual needling. More than one type of needle was used 5.2% of the time. No respondent reported experiencing important adverse events from the needles.

Complaints brought for Chinese medicine care

Respondents were offered a menu of 30 choices to report why they were seeking Chinese medicine care. The first 15 included "general well-being care," "mood and emotions care," and 13 complaints that had emerged as popular in pilot studies.³ The remaining 15 choices were bodily systems. Respondents were asked to mark as many choices as applied, and to star up to three items as main reasons for seeking Chinese medicine care. Respondents could list all the reasons they had ever received Chinese medicine care even if they no longer needed care for that complaint. This approach provided an overview of reasons for seeking Chinese medicine care, but means that the results cannot be compared directly with data from surveys that assess "current main complaints" alone.

Table 2a shows that at all sites, the top three reasons respondents sought Chinese medicine care (measured as all reasons or main reasons

³The 13 conditions included: pain, bones and joints; pain, muscles; pain, digestive; pain, headache; addictions (drugs, alcohol, etc.); infections; cancers/radio- or chemotherapy; stress/anxiety/fatigue; depression; weight problems; asthma; allergies; dysmenorrhea/PMS.

TABLE 2. RESPONDENTS' REASONS FOR SEEKING CHINESE MEDICAL CARE, AND REPORTS OF WHAT CHANGED WITH CARE, COMBINED SAMPLE

| 2a: Reasons for seeking Chinese medical care* | | | 2b: Response to Chinese medical care** | | | | n |
|---|-----|------|--|------|------|-------|-------|
| | | | Dis | Impr | Same | Worse | |
| Condition*** | n | % | % | % | % | % | n |
| Mood care | 381 | 66.3 | 10.7 | 82.7 | 6.2 | 0.4 | 243 |
| Well care | 362 | 63.0 | 7.1 | 91.1 | — | 1.8 | 56 |
| Musculoskeletal | 321 | 58.8 | 15.1 | 74.6 | 9.9 | 0.4 | 232 |
| Respiratory | 231 | 40.2 | 17.6 | 68.2 | 7.1 | — | 85 |
| Head and neck | 182 | 31.7 | 17.5 | 76.3 | 5.0 | 1.3 | 80 |
| Digestive | 129 | 22.4 | 7.5 | 85.1 | 7.5 | — | 67 |
| Urinary and male reproductive | 117 | 20.3 | 11.8 | 58.8 | 29.4 | — | 17 |
| Female reproductive | 100 | 17.4 | 13.3 | 78.3 | 6.7 | 1.7 | 60 |
| Infectious | 77 | 13.4 | 43.2 | 54.1 | 2.7 | — | 37 |
| Autoimmune | 72 | 12.5 | 9.5 | 66.7 | 23.8 | — | 21 |
| Weight problems | 62 | 10.8 | — | 61.1 | 33.3 | 5.6 | 18 |
| Other | 254 | 44.2 | 12.8 | 82.6 | 3.7 | 0.9 | 109 |
| Sample total n | 575 | | 139 | 782 | 79 | 7 | 1007 |
| Sample total % | | | 13.8 | 77.7 | 7.8 | 0.7 | 100.0 |

*Using a menu of 30 items, respondents marked any for which they had ever received Chinese medicine care. Table lists separately reasons that were mentioned by >10% of respondents.

**Respondents could choose to report up to four changes in symptoms or conditions; 95 people did not answer the question; 478 named one symptom, 303 named 2 symptoms, 167 named 3 symptoms, 58 named 4 symptoms. Choices included *disappeared, improved, did not change, got worse*, which appear in headings as "dis," "impr," "same," and "worse."

***CONDITIONS:

Mood care = all reports of mood support, plus seeking Chinese medicine care (CMC) to relieve stress, anxiety, fatigue, depression; includes reports of "chronic fatigue syndrome."

Well care = all reports of using CMC for maintaining well being, health, and illness prevention.

Musculoskeletal = all reports of pain or other disability in bones, muscles, joints, ligaments.

Head and neck = all reports of headache, chronic neck or head pain of all forms, also learning disabilities, epilepsy, etc.; excludes cancers, insomnia.

Respiratory = all reports of asthma, allergies, rhinitis, emphysema, multiple chemical sensitivities; excludes respiratory infections, cancers.

Digestive = all reports of painful and nonpainful noninfectious digestive system conditions.

Urinary and male Reproductive = all reports relative to urinary system, plus male reproductive system complaints.

Female reproductive = all reports of menstrual pain or discomfort, menopausal symptoms, infertility, endometriosis, uterine fibroids, other reproductive system complaints.

Infectious = all reports of infections including colds, sinusitis, pneumonia, cystitis, hepatitis ($n = 7$), HIV ($n = 10$).

Autoimmune = all reports of immune dysfunctions including diabetes ($n = 8$), thyroiditis ($n = 5$), multiple sclerosis ($n = 3$), lupus erythematosus ($n = 3$), etc.; excludes reproductive system complaints.

Weight Complaints = all reports of anorexia, bulimia, low weight, high weight.

Other = all conditions with fewer than 10% of sample reporting the complaint category, including circulatory ($n = 53$), eye or ear ($n = 48$), skin ($n = 45$), substance abuse ($n = 43$), mouth or jaw ($n = 30$), sleep disturbance ($n = 21$; a respondent-created category); cancer and radio/chemotherapy ($n = 14$), complaints phrased in Chinese medicine terms ($n = 10$; a respondent-created category).

alone) were for relief of pain or unstable mood, and for maintenance of well being or good health. Other important reasons for were for respiratory, digestive, and head and neck complaints. Among these, the most common specific complaints were allergies, asthma, and headache. Female reproductive complaints were more common at school clinics, probably

due to the younger population. The most common infections that respondents reported having treated with Chinese medicine care were colds, sinusitis, hepatitis, and human immunodeficiency virus (HIV) infection. A considerable number of patients seek help from Chinese medicine for autoimmune disorders. In this middle-class population, none reported seek-

TABLE 3. QUALITY OF LIFE CHANGES IN RESPONSE TO RECEIPT OF CHINESE MEDICINE CARE

| Statement | N/575 Answering question | % "None of the time" | % "A little of the time" | % "Some of the time" | % "Most of the time" |
|--------------------------------|--------------------------------|-------------------------|--------------------------------|----------------------------|-------------------------|
| I feel better | 478 | 0.4 | 2.3 | 21.1 | 76.2 |
| I miss fewer work days | 331 | 9.4 | 3.0 | 16.6 | 71.0 |
| I get along better with others | 394 | 2.3 | 4.8 | 24.1 | 68.8 |
| I have less pain | 423 | 1.9 | 5.9 | 28.4 | 63.8 |
| I can work better | 440 | 1.6 | 4.5 | 30.2 | 63.6 |
| I have more energy | 452 | 1.1 | 6.4 | 34.3 | 58.2 |
| I am more focused | 433 | 1.2 | 7.4 | 33.3 | 58.2 |

ing detoxification for illegal drugs, and only a few for alcohol or nicotine, but many reported seeking help for dependency on prescription drugs including steroids, sympathomimetics, antidepressants, and nonsteroidal anti-inflammatory drugs (NSAIDs).

In their written responses, respondents provided other reasons for seeking Chinese medicine care. Some 17.0% (site range 12.7% to 32.5%) stated that they were frustrated with biomedical care. Although it is often said that people choose alternative medicine as "a last resort," only 8.7% of respondents to this survey stated this as their reason for seeking Chinese medicine care.

Response to Chinese medicine care

Respondent response to Chinese medicine care was sought in a set of three questions concerning symptom change, quality of life, and perceived cost savings.

Table 2b shows what respondents reported happened to up to four symptoms or complaints they had previously listed as reasons why they sought Chinese medicine care. In response to this question, 91.5% reported symptoms or conditions that had "disappeared" or "improved," 7.5% reported on a condition that had "not changed," and 0.7% reported a symptom that had "worsened."

Respondents were offered a menu of statements concerning improved quality of daily life (including the workplace) and asked to state how well these statements described them (Table 3). A large majority of those to whom the statement applied reported that they typified their experience "some" or "most" of the time while receiving Chinese medicine care.

Table 4 shows that among those to whom the issue applied, a majority claimed that their use of non-Chinese care had decreased since they began receiving Chinese medicine care. Although unquantified in this survey, these decreases represent potentially large biomedical care cost savings, particularly for surgery avoided.

Other forms of health care used

Survey respondents used a wide range of health care in addition to Chinese medicine. Table 5 details both self-care habits and use of professionalized health care other than Chinese

TABLE 4. RESPONDENT REPORTS OF HEALTH CARE AND COST SAVINGS WHILE RECEIVING CHINESE MEDICINE CARE

| Statement: "With acupuncture I was able to . . ." | N/575 to whom question applied | n who said "yes" | % who said "yes" |
|---|---|------------------------|------------------------|
| Reduce office visits to medical doctors | 334 | 281 | 84.1 |
| Reduce use of prescription drugs | 299 | 236 | 78.9 |
| Reduce use of physical therapist | 169 | 131 | 77.5 |
| Reduce insurance reimbursement claims | 191 | 147 | 77.0 |
| Avoid surgery* | 97 | 68 | 70.1 |
| Reduce use of psychotherapy | 200 | 117 | 58.5 |

*Type of surgery reported avoided (in respondents' words): angioplasty, back ($n = 7$), biopsy, cancer (2), carpal tunnel (2), colonectomy, cyst removal, 'dental,' ear-nose-throat, ear tubes, gallbladder (3), hand, hernia, hysterectomy (5), kidney stone, knee, lumbar 4-5 fusion, myomectomy, oral, ovarian cyst (3), 'resection' (2), shoulder and knee, sinus (2), stomach, tendon debridement, thyroid, 'tubal check,' tumor, urethra.

TABLE 5. CHINESE MEDICINE PATIENTS' USE OF OTHER PROFESSIONALIZED HEALTH CARE AND SELF-CARE "USED REGULARLY" IN THE THREE-MONTHS PRECEDING SURVEY

| <i>Professionalized health care</i> | n | % | <i>Self-care</i> | n | % |
|-------------------------------------|-----|------|------------------------------------|-----|------|
| Biomedicine/allopathy | 313 | 54.4 | Physical exercise | 376 | 65.4 |
| Herbalism ^a | 200 | 34.8 | Vitamin supplements | 348 | 60.5 |
| Massage therapy | 151 | 26.3 | Self-chosen herbs | 217 | 37.7 |
| Psychotherapy | 149 | 25.9 | Meditation | 215 | 37.4 |
| Chiropractic | 114 | 19.8 | Prayer | 197 | 34.3 |
| Bodywork ^b | 72 | 12.5 | Mineral supplements | 181 | 31.5 |
| Homeopathy | 55 | 9.6 | Dietary modifications ^c | 158 | 27.5 |
| Nutritional therapy | 38 | 6.6 | Self-chosen homeopathic remedies | 100 | 17.4 |
| Physical therapy | 30 | 5.2 | Yoga, Taiji, Qigong | 97 | 16.9 |
| Naturopathy | 17 | 3.0 | 12-step program | 56 | 9.7 |
| Osteopathic manipulation | 17 | 3.0 | Sweatlodge | 9 | 1.6 |
| Shamanic counseling | 11 | 1.9 | Other ^d | 44 | 7.7 |
| Ayurveda | 8 | 1.4 | | | |
| Hypnotherapy | 8 | 1.4 | | | |
| Biofeedback | 4 | 0.7 | | | |
| Curanderismo ^e | 1 | 0.2 | | | |
| Other ^d | 19 | 3.3 | | | |

^aHigh use of herbs may be because Chinese medicine patients using herbs reported it here as well as under Chinese medicine modalities.

^bBodywork includes practices such as Feldenkreis, Rolfing, and Zero Balancing.

^cCuranderismo is a folk health-care system common in Mexico and Central America, and widely used by Hispanic-Americans.

^dOther includes a wide range of practices that do not fit in categories listed.

^eDietary modifications includes fasting, vegetarianism, macrobiotics, and low-fat/low-cholesterol diets as well as modifications intended to result in weight-loss.

medicine. Biomedicine was the most used system after Chinese medicine, medical doctors having been consulted by 54.4% of respondents in the 3 months preceding the survey. Figure 1 shows that only 15% of respondents depended on acupuncture alone; most respondents were using multiple systems of care. In fact, the average number of professionalized systems used in addition to Chinese medicine was 2.2 (17 choices offered, range 1 to 10 claimed uses).

Satisfaction with Chinese medicine

When asked in a five-point Likert scale question to say "what made the difference" in their health, a majority said it was "definitely" or "probably" Chinese medicine, and this response pattern predominated even when respondents reported using several forms of health care (Table 6; $p < 0.03$). This counterintuitive result—although partly explained by remarks in the qualitative section of the questionnaire discussed in Part II of this paper—deserves further exploration. For the

moment, it indicates that Chinese medicine care has high face value—that is, users find it convincing even when they compare it with other forms of health care that they have tried.

This point is underlined by the results of a comparative question: Asked to report their relative satisfaction with biomedical and Chinese medicine care in a five-point Likert scale, respondents reported marked satisfaction with Chinese medicine care whether measured in terms of practitioner (median value 5, "extremely satisfied"), treatment (median 5), or cost (median 4, "very satisfied"; Table 7). The distribution of opinion about biomedicine followed a normal curve, with the median falling at the midpoint, "satisfaction," for practitioner, treatment, and even cost. The difference is statistically significant for each component (paired sample *t*-test values $p < 0.003$, 0.015, 0.053, respectively). Note that high satisfaction with Chinese medicine did not imply low satisfaction with biomedicine; these patients are not abandoning biomedicine.

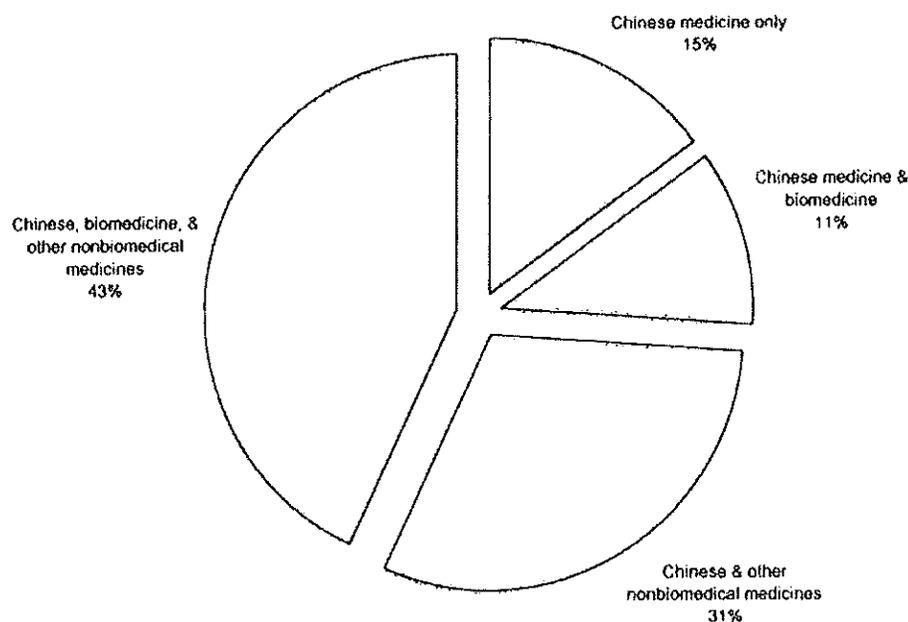


FIG. 1. Use of professional health care.

Movement toward an informed plurality of medical usage

Although not rejecting biomedicine, respondents may be learning to use this medical system selectively, rather than as a generic or "normative" system to which they refer all problems. Remarks respondents offered spontaneously in

TABLE 6. RESPONDENT PERCEPTION OF "WHAT MADE THE DIFFERENCE" IN THEIR HEALTH*

| | % Likely | % Unclear | % Combination of factors |
|--|----------|-----------|--------------------------|
| Used CM only | 89.3 | 5.4 | 5.3** |
| Used CM & biomedicine only | 82.4 | 7.8 | 9.8 |
| Used CM & other biomedical care only | 75.0 | 7.4 | 17.6 |
| Used CM, biomedicine, and other nonbiomedical care | 73.9 | 3.9 | 22.2 |

*Data collected in response to a question phrased: "If you've experienced a change in your health since beginning acupuncture care, do you think it's acupuncture that made the difference?" The original Likert scale included five choices, here combined: Likely = "Definitely" plus "Probably;" Unclear = "Unclear" plus "Probably not;" Combination = "A Combination of Factors."

**May reflect respondent reporting response to self-care in addition to professionalized care.

their written reports indicate that they evaluated practices and used them "for what they do best," sometimes creating teams of practitioners of different medicines to serve personal needs. While this finding may yet be surprising on the American scene, in settings where medical plurality is normative, it has long been established that consumers are astute at distinguishing among options and using them wisely (Anderson, 1996; MacLean, 1978; O'Connor, 1995; Welsch, 1983; Young, 1981).

A handful of excerpts selected from the qualitative section of the survey (see Part II) support the proposal that respondents are functioning as consumers within a plural medical system and select proactively among their options. The first three show respondents using biomedicine selectively. The succeeding four show respondents using a range of health care in a complementary model.

4111: I have a high regard for my MD. However, [I take] any chance to avoid prescription drugs and procedures. I love the chance to make an "alternative choice."
4140: I see MDs when needed—perhaps 1 time a year for incidentals like a mole removal, splinter removal, and eye exam.

TABLE 7. RESPONDENT REPORTS OF SATISFACTION WITH CHINESE MEDICAL AND BIOMEDICAL CARE

| Satisfaction level % | n AQ* | Extremely | Very | Satisfied | Not very | Not at all |
|---------------------------------|----------|-----------|------|-----------|-------------|---------------|
| Chinese medical care | 516 | 59.1 | 28.7 | 11.4 | 0.8 | 0.0 |
| Biomedical care | 458 | 13.4 | 17.7 | 36.0 | 22.9 | 10.0 |
| Chinese medical practitioner | 535 | 69.3 | 21.9 | 8.2 | 0.6 | 0.0 |
| Biomedical practitioner | 470 | 15.3 | 28.5 | 33.4 | 15.7 | 7.0 |
| Chinese medicine cost | 516 | 43.6 | 26.2 | 25.4 | 3.7 | 1.2 |
| Biomedical cost | 458 | 12.2 | 13.8 | 37.3 | 21.2 | 15.5 |

*n AQ = number of respondents/575 who answered the question. The biomedical numbers are smaller because some did not use biomedical care.

5015: . . . both Western and Eastern forms of medical care can complement each other nicely, one supplying the patient with treatments that the other may be lacking. This can only help all patients stay as well as possible.

2128: I was diagnosed with an ovarian cyst and elevated androgen levels. The MD wanted to try hormonal therapy but was a very reasonable person and supported my wish to try acupuncture and homeopathy. [The homeopath] did not support me seeing an acupuncturist so I dropped her and continued acupuncture and herbs. . . . Along with the hormonal problems came great anxiety and fear, and depression. It is not too strong to say that a combination of acupuncture and psychotherapy saved my life, as the hormonal swings were making me unable to eat and suicidal. . . . When I went back for hormone tests a year later—the levels were normal!

2070: I consulted 4 different chiropractors until I found one that . . . was interested in my total health. No one was able to take the pain away from my neck until I started acupuncture. With the [antidepressant] I am taking now and the therapy with acupuncture, I am getting my life back together. . . . The regular MDs did not take the pain away . . . the chiropractic alone did not work, but together they worked very well.

4128: Mild myocardial infarction in April

1995. . . . Started calcium channel blocker. After 4–5 months experienced reflux . . . felt weak, drained, lousy. [A change in prescriptions yielded] some improvement but not enough. Started acupuncture approximately 2–4 weeks later; have had 4 treatments and noticed substantial improvement for a 3 week period. Practitioners = internist MD, gastroenterologist MD, nurse-acupuncturist.

4018: In 1990 I started noticing some right hip-back discomfort, went to rheumatologist and was told I had some arthritic changes. Symptoms progressed and a year later went to a chiropractor . . . with symptoms continuing started with an osteopath. I realized personalized care and a degree of improvement. These treatments continued and in July 1994 I started acupuncture. The combination of acupuncture and osteopathic treatment has nearly eliminated knee-back pain.

DISCUSSION

The survey reported here is the first in-depth and large-scale survey of Chinese medicine users in the United States. As such, it is exploratory, and provides an initial database on which future research can draw and build. It also provides insight into causes for the rising popularity of Chinese medicine.

Data were gathered from six clinics in five states, sites that are distant in space, and differ

in other features including the styles of Chinese medicine practiced. Nevertheless, apart from the school clinics having somewhat younger and lower income patient populations, respondents to this survey were remarkably similar in their response patterns.

The demographic picture is one of middle-class educated users in relatively self-determining occupations who are willing to risk trying a new (to the United States) form of health care, and with sufficient income to pay out-of-pocket for their care. As noted, this pattern matches demographic images from earlier research. However, as third party reimbursement for Chinese medicine care becomes more common in the United States, it is probable that we will see a shift to a demographic picture more nearly mirroring the United States population at large, that is, a broader age range, and a full occupational and educational range.

The complaint pattern shows that when respondents are given free rein to express their own goals for use of a health-care system, symptom relief is an important issue but mood care and preventive care emerge as equally important. Although this ranking may partly reflect the fact that well care and mood care appeared first on the questionnaire, it also reflects a felt reality, for mood and well care emerge as highly valued in the written commentaries as well, a point developed in Part II.

Respondents were offered three ways to report response to care including symptom relief, improved quality of life, and decreased use of biomedical care components. Chinese medicine emerged as effective from the point of view of users for all three. Thus, 91.5% of respondents reported relief of symptoms, even when offered the option of reporting no change or worsening. A majority reported improvements in quality of life. And for those to whom the issues applied, a majority also reported decreased use of pharmaceuticals, surgery, and a range of biomedical practitioners.

The unique data presented here concerning decreased use of prescription drugs and avoidance of surgical procedures suggest a high potential for cost savings. Because this research was not experimental, it is not possible to formally link patient reports of treatment effectiveness or cost savings to physiological

change—these are not cost-effectiveness data. Combined with the satisfaction data, however, and by the measures used, we do know that users *perceive* and *experience* improved health and well being in an environment that they *like*.

Another striking finding is the high rate of use of professionalized health-care practices other than Chinese medicine and biomedicine. Clearly, this population is making health-care choices as if the United States were organized at the national level in a plural medical system. The question is, how are they using these medical practices? Cost savings cannot emerge from a shotgun or additive approach to medical care, but can occur if patients use practices selectively, for what they do best. That is the essence of the concept of complementarity in medical care. In fact, limited data from the qualitative section of the survey suggest that these consumers are using the range of health care available to them selectively and astutely to achieve their health care goals. This finding deserves further research, for its factuality is pivotal to the establishment of an effective plural medical system in the United States.

In sum, data presented in Part I summarize who uses Chinese medicine, and for what conditions, and shows that while users tend to selectively consult a wide variety of professional health-care practitioners, they are highly satisfied with their Chinese medicine care. Part II analyzes the qualitative data in detail to identify which characteristics of Chinese medicine care make it so satisfying to consumers. These data show that what respondents value is a set of delivery components that both fit the concept "holistic" and closely match nationally identified health-care wants and needs.

ACKNOWLEDGMENTS

The author would like to thank the following people for facilitating this survey in their acupuncture clinics: Harriet Beinfeld, LAc; Kathleen Galloway MAc, LAc; Judi Harrick, PhD, LAc; Efreem Korngold, OMD, LAc; Fred Lanphear, PhD; Regina Mazetti-Marino; Angie Sherrard. Special thanks for critiquing an earlier version of the paper to Richard Hammer-schlag, PhD; Karen Sherman, PhD. The Tradi-

tional Acupuncture Institute acknowledges the generous support of this research by small grants from The Fetzer Institute, Chevron Corporation, Ryland Corporation, The Rouse Company Inc., First National Bank of Maryland, and TAI alumni gifts.

REFERENCES

- Anderson R. An American clinic for traditional Chinese medicine: comparisons to family medicine and chiropractice. *J Manipulative Physiol Therap* 1991;14:462-5.
- Anderson R 1996 *Magic, Science and Health, the Aims and Achievements of Medical Anthropology*. Fort Worth TX, Harcourt Brace College Publishers.
- Bernard HR 1992 *Research Methods in Cultural Anthropology*. 2nd ed. Sage Publications, Thousand Oaks, CA.
- Bullock M, Pheley A, Kiresuk R, Lenz S, Culliton P. Characteristics and complaints of patients seeking therapy at a hospital-based alternative medicine clinic. *J Altern Complement Med* 1997;3:31-7.
- Cassidy CM. Walk a mile in my shoes: Culturally sensitive food-habit research. *Am J Clin Nutr* 1994a;59 (suppl):190S-197S.
- Cassidy CM. Unraveling the ball of string: Reality, paradigms, and the Study of alternative medicine. *Advances, J Mind-Body Hlth* 1994b;10:5-31.
- Cassileth B, Lusk E, Strouse R, Bodenheimer B. Contemporary unorthodox treatments in cancer medicine. *Ann Intern Med* 1984;101:105-12.
- Clinical Oncology Group. New Zealand cancer patients and alternative medicine. *N Z Med J* 1987;100:110-13.
- Culliton P. Current Utilization of Acupuncture by U.S. Patients. Oral Report to NIH Consensus Development Conference on Acupuncture, November 3, 1997.
- Eisenberg D, Kessler R, Foster D, Norlock F, Dalkins D, Delbanco R. Unconventional medicine in the United States, prevalence, costs, and patterns of use. *N Engl J Med* 1993;328:246-252.
- Emad M. Does acupuncture hurt? Cultural shifts in experiences of pain. *Proc Soc Acup Res* 1994;2:129-140.
- Hare M 1992 *East-Asian medicine among non-Asian New Yorkers: A study in transformation and translation*. Dissertation available from Michigan Microfilms, Ann Arbor, MI.
- Hare M. The emergence of an urban U.S. Chinese medicine. *Med Anthropol Q* 1993;7:30-49.
- James R, Fox M, Taheri C. Who goes to a natural therapist? Why? *Aust Fam Physician* 1983;12:383-6.
- Maclean U 1978 *Choices of treatment among the Yoruba*. In Morley P, Wallis R (eds) *Culture and Curing, Anthropological Perspectives on Traditional Medical Beliefs and Practices*. University of Pittsburgh Press, Pittsburgh, PA, pp 152-167.
- McGinnis D. Alternative therapies: An overview. *Cancer* 1991;67:1788-92.
- McGuire M 1988 *Ritual Healing in Suburban America*. Rutgers University Press, New Brunswick, NJ.
- National Council for the Certification of Acupuncturists, 1997, Silver Spring, MD.
- O'Connor BB 1995 *Healing Traditions, Alternative Medicine and the Health Professions*. Philadelphia, PA, University of Pennsylvania Press.
- Qualis Research Associates. 1996 *The Ethnograph 4.0*. Amherst, MA.
- Reston J. "Now about my operation in Peking." *New York Times*, July 26, 1971, pp. 1,6.
- SPSS Inc. 1995 *SPSS Base 6.0 for Windows*, Chicago IL.
- Thomas K, Carr J, Westlake L, Williams B. Use of non-orthodox and conventional health care in Great Britain. *Br Med J* 1991;302:207-10.
- Verhoef M, Sutherland L, Birkich L. Use of alternative medicine by patients attending a gastroenterology clinic. *Can Med Assoc J* 1990;142:121-5.
- Young JC 1981 *Medical Choice in a Mexican Village*. Rutgers University Press, New Brunswick, NJ.
- Welsch RL 1983 *Traditional medicine and Western medical options among the Ningerum of Papua New Guinea*. In Romanucci-Ross L, Moerman DE, Tancredi LR (eds) *The Anthropology of Medicine, From Culture to Method*. J.F. Bergin Publishers, South Hadley MA, pp. 32-53.

Address reprint requests to:
Claire M. Cassidy, Ph.D.
 6201 Winnebago Road
 Bethesda, MD 20816

Copyright of Journal of Alternative & Complementary Medicine is the property of Mary Ann Liebert, Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.