

## Patient Characteristics for Outpatient Acupuncture in Beijing, China

VITALY NAPADOW, Ph.D.,<sup>1,2</sup> and TED J. KAPTCHUK, D.M.D.<sup>3</sup>

### ABSTRACT

**Objectives:** This study quantifies and compares patient characteristics in outpatient acupuncture.

**Setting/design:** Prospective primary source evidence was gathered at two prominent outpatient acupuncture clinics in Beijing, China ( $n = 563$ ,  $n = 233$ ).

**Results:** The most common condition was Bell's palsy, which represented 20.6% and 25.3% of total cases at the two clinics, respectively. The second most common condition was cerebrovascular accident (CVA) rehabilitation. These treatments represented 11.9% and 12.0% of treatments at the two clinics, respectively. Other trends at the clinics included the following: (1) neurologic complaints predominated; (2) doctors see a large number of patients per day; (3) the majority of patients overall were female; while (4) the majority of patients treated for CVAs rehabilitation were male. As cultural and socioeconomic differences in perceptions of acupuncture exist between peoples of different countries, this study also compared patient main complaints in China to available data on acupuncture patients seen in other parts of China, Germany, the United Kingdom, Australia, and the United States. Except for the German clinic data, Western clinic acupuncturists saw more musculoskeletal complaints compared to China, where neurologic complaints predominated. Another significant difference between Asian and Western clinics was the number of patients seen per hour. While acupuncturists were reported to see 1.2 patients per hour in U.S. clinics, acupuncturists at the two Beijing, China, clinics saw 7.0 and 10.4 patients per hour, respectively.

**Conclusion:** The main complaints seen in acupuncture outpatient clinics throughout the world likely result from a combination of inherent disease prevalence as well as patients' attitudes toward what acupuncture can treat successfully.

### INTRODUCTION

Acupuncture, a component of Traditional Chinese Medicine (TCM), has been practiced in China in some form for more than 2500 years (Unschuld, 1985). In the past century, it has proliferated in many other countries, and continues to grow in popularity (Scheid, 1999). Acupuncture has been described as an alternative or complementary medicine whose advantages include a purported efficacy without many of the side effects or complications encountered in Western medicine (Kaptchuk, 2000). More than 500 randomized controlled trials (RCT) of acupuncture have been performed in the West (Klein and Tractenberg, 1997; Vick-

ers, 1998). A National Institutes of Health (NIH) Consensus Development Panel on acupuncture reviewed this data in 1997 and found strong evidence for acupuncture efficacy in emesis control and dental pain (National Institutes of Health, 1998). For all other conditions, including chronic pain, the evidence was equivocal. A more recent review of the RCT evidence found no significant data to modify or contradict the previous NIH panel's conclusion (Kaptchuk, 2002). However, most patients when visiting acupuncturists—either in the East or West—do not restrict themselves to the limited list of conditions where the scientific evidence is compelling. The goal of this study is to contribute to our understanding of why patients seek out acupuncture by

<sup>1</sup>Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Boston, MA.

<sup>2</sup>Department of Radiology, Logan College of Chiropractic, Chesterfield, MO.

<sup>3</sup>Osher Institute, Harvard Medical School, Boston, MA.

quantifying, through prospective primary source evidence, the main complaints of patients seen in two outpatient settings in Beijing, China. As cultural and socioeconomic differences and perceptions of acupuncture exist between peoples of different countries, a further goal of this study is to compare patient main complaints in China to the available data concerning reasons for acupuncture visits in other parts of the world.

China represents the country of origin for acupuncture, which is a component of TCM. A long history and cultural acceptance of acupuncture has produced a population that is familiar with this healing modality. Nonetheless, given the widespread availability of various health care settings, why and how people decide to use acupuncture can be a complex process (Farquhar, 1996a, 1996b; Harrall, 1991; Hsu, 1999; Scheid, 2002). Obviously, personal experience and familiarity is one reason to seek acupuncture care. Government policy undoubtedly impacts acupuncture's utilization as well. In China for example, Communist policy during different periods in recent history has often increased acupuncture utilization (Croizier, 1968; Lucas, 1982; Taylor, 2000), while Republican policy in the 1920s diminished acupuncture utilization (Lei, 1998; Lucas, 1982). China's longstanding familiarity and recent massive government support of acupuncture is absent in the West. For example, U.S. government and state policy on acupuncture has been formed only recently tends to be neutral in its tone (Kaptchuk and Eisenberg, 2001). Nonetheless, the widespread development of acupuncture licensure in the United States since 1976 seems to have also promoted acupuncture utilization (Kaptchuk and Eisenberg, 2001).

Additionally, in the United States, patients often learn about acupuncture from mass media reports of patient testimonials, government recommendations, possible basic mechanisms (e.g., endorphins), and clinical trials (Kaptchuk et al., 2002). Not all of these reports have been universally supportive of acupuncture care (Squires, 2002). In China, on the other hand, almost all published clinical trials of TCM have a positive outcome (Vickers et al., 1998), and it is unclear if evidence-based investigations or governmental recommendations have any impact on acupuncture utilization in its country of origin. Clearly, acupuncture was popular in East Asia before mass media or the apparatus of controlled clinical trials and government regulation (Bates, 2000; Kaptchuk, 1997; Unshuld, 1985).

However, before the rationale behind international differences in acupuncture utilization is explored, those differences must first be quantified. Also, China itself is a large country and differences between clinics in different cities and regions may exist. In this study, we have directly compared main complaint prevalence in two typical hospital outpatient clinics in Beijing, to prevalence reports from a hospital in Shandong, China (Xu, 2001), as well as TCM clinics in Germany (Melchart et al., 1997), Australia (Bensoussan et al., 1996), and the United Kingdom (Wadlow and

Peringer, 1996). In addition, reports on this topic are scarce, and while we were unable to make direct comparisons because of methodological differences, we have also considered data from the United States (Cassidy, 1998; Cherkin et al., 2002a, 2002b; Diehl et al., 1997; Dung, 1985), Taiwan (Chou et al., 1998), and Israel (Soffer et al., 2001).

## MATERIALS AND METHODS

In order to appreciate the scope of acupuncture in a Chinese outpatient clinic, one of the authors (V.N.) observed patient treatments over a set time period in two separate prominent hospitals in Beijing, China. These clinics were chosen because they treated a high volume of patients per day and served a typical cross-section of Beijing society, one inside the city proper (Beijing Hospital of Traditional Chinese Medicine; BHTCM), the other in a less central region (Wang Jing Hospital; WJH). Because the practice of acupuncture is thought to be dependent on the personal preferences of both practitioner and clinic, a brief description of both sites is in order.

The first clinic was at the Wan Jing Hospital of the Chinese Academy of TCM, located northeast of Beijing city center. Data at this clinic were collected over 5 days, from January 18 to January 22, 2003. This hospital was founded as the Beijing Hospital of Acupuncture and Orthopedics and was originally a trauma and orthopedics center, but was later expanded to include other departments in order to meet the local community's needs. The outpatient service has 20 beds spread over three unpartitioned rooms and 2 full-time staff doctors—Dr. Yu-Qing Xia and Dr. Na Hong. Dr. Xia was responsible for treating the majority of patients in this clinic. She was originally trained as a Western physician, but later trained as a TCM doctor, and has now been practicing TCM for more than 50 years. Dr. Xia's background was typical of other senior acupuncturists working in Beijing. Dr. Hong is a young acupuncturist who has treated fewer patients and whose training was typical of a young, newly trained TCM physician.

The second clinic was at the Beijing Hospital of TCM, located in the Beijing city center. Data at this clinic were collected over 18 days, from November 14 to December 13, 2002. The outpatient service has 12 full-time staff doctors, one of whom was Dr. Wei Zhu, who covered 6–9 beds (1–2 unpartitioned rooms, depending on availability). Dr. Zhu trained as a "barefoot doctor" in addition to a more formal education in Beijing. He has practiced acupuncture in Yugoslavia (4 years) as well as Hong Kong (1 year). Acupuncturists who trained as barefoot doctors, also typify those doctors of Dr. Zhu's age and seniority.

Data collection was prospective and was completed over a period of 18 clinic days at the Beijing Hospital of TCM, and over 5 days at Wan Jing hospital. For these days, all patients seen by Drs. Xia, Hong, and Zhu in the period of 8:00

AM to 12:00 PM (vast majority of daily patient load) were included in this study. A total of 563 treatments were recorded at the Beijing Hospital of TCM, while a total of 233 treatments were recorded at Wan Jing Hospital. For each treatment observed, a record was made of the patient's gender, main complaint, and of the acupoints used for that treatment. The main complaint was tracked by treatment and not by patient, because patients would sometimes alter their main complaint as they progressed in the course of treatment.

Data were compiled and analyzed with descriptive statistical metrics in order to explore main complaint prevalence and gender differences among patients at both sites. Some main complaints represented previously diagnosed clinical disorders (such as hypertension, diabetes, etc.), while others were merely symptoms (such as back pain, nausea etc.). Furthermore, the main complaint data were re-compiled based on broader categories including musculoskeletal, cardiovascular, neurologic, and other system disorders. This grouping allowed for comparison with data from other acupuncture and TCM clinics around the world.

Similar reports of prevalence with which comparisons were drawn included data from acupuncture or TCM clinics in Shandong, China (Xu, 2001), Germany (Melchart et al., 1997), Australia (Bensoussan et al., 1996), and the United Kingdom (Wadlow et al., 1996). The methodologies for data collection were different for each of these studies. The Shandong, China, study (*n* = 373) was completed through an audit of hospital patient records accumulated over a 1-year period. Data from Germany (*n* = 1597) were collected with a prospective methodology designed to log patient clinical history at the time of admission. Both the Australian (*n* = 274) and United Kingdom (*n* = 664) studies were completed via a survey distributed to practitioners to log patients on one given treatment day.

In addition, we have also considered other reports that we were unable to use for direct comparison. From the United States, data from Cherkin et al. (2002b) were gathered via randomized telephone survey of acupuncture practices in

two states (Washington and Massachusetts), but only provided main complaint data on the most prevalent 35%, therefore missing 65% of data necessary for our comparison table (Table 1). However, we did use Cherkin et al.'s data on treatment duration and patient load, which was reported for all patients (*n* = 2561) (Cherkin et al., 2002b). Two other U.S. reports, by Cassidy et al. (1998) and Diehl et al. (1997), gathered data through a questionnaire distributed to 6 multipractitioner clinic sites, and 312 practitioners, respectively. However, their data could not be included in our comparison table, because patient complaints were not distinguished as being primary, secondary, or tertiary, et cetera. Dung (1985) completed a retrospective audit of patient records (*n* = 3691) collected over 3 years (1981–1984) from a single U.S. clinic. Unfortunately, this study could not be included in our comparison table, because data from only the top four categories of main complaint were provided (pain, smoking cessation, weight loss, and other). Finally, a study from Taiwan (Chou et al., 1998) that reported the results from home visit questionnaires (*n* = 5805), could not be directly included because it only inquired about pain versus nonpain main complaints, and a retrospective patient (*n* = 398) record audit from Israel (Soffer et al., 2001) could not be included because main complaints were only divided into three categories (musculoskeletal, neurologic/emotional, other).

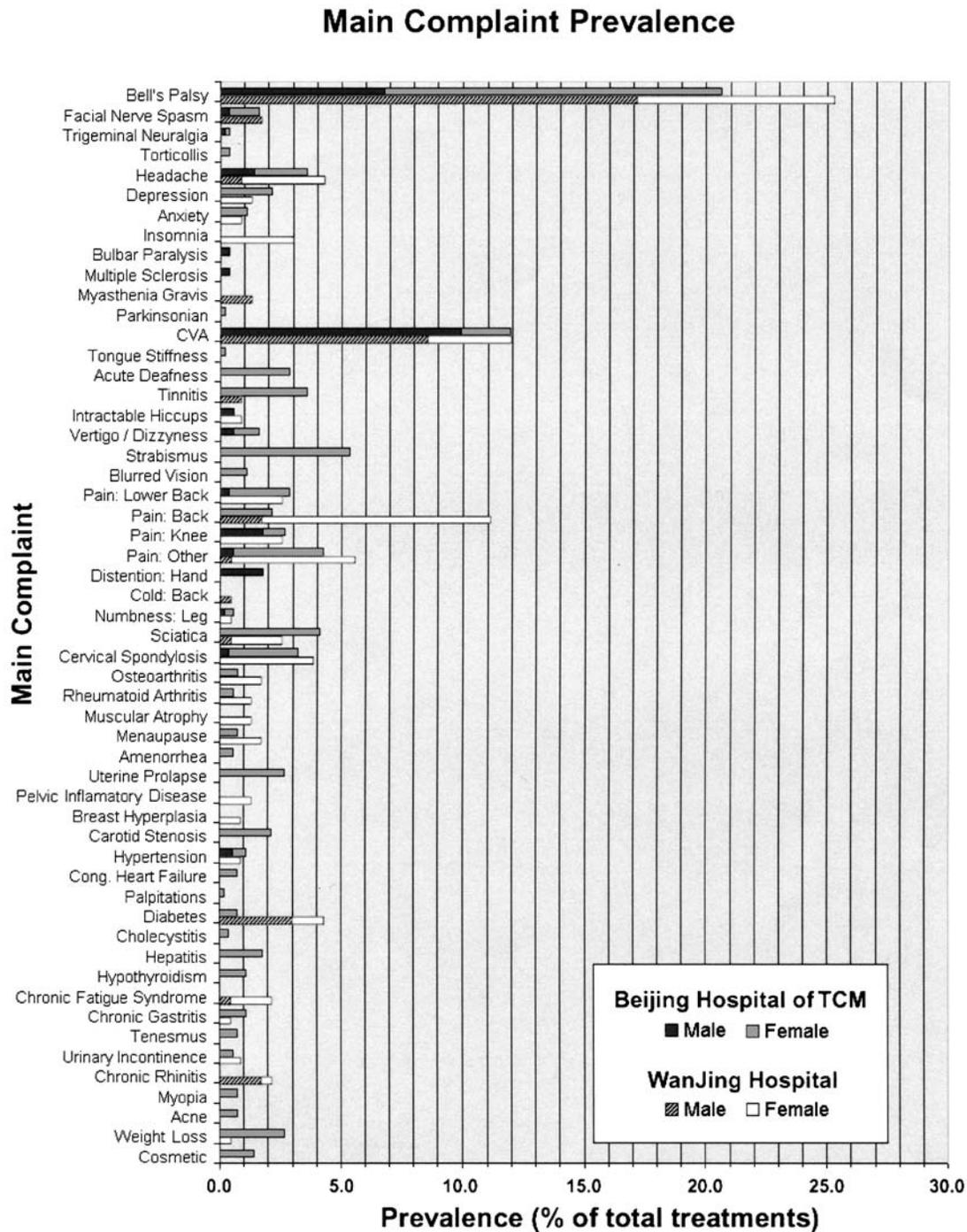
RESULTS

The following figures and tables represent the results of data acquisition in the outpatient departments of Beijing Hospital of TCM and Wan Jing Hospital. The results of the main complaint prevalence analysis were presented as a bar graph with distinctions made for gender and hospital from which the data originated (Fig. 1). The most common condition was Bell's palsy, which represented 20.6% of total cases at the Beijing Hospital of TCM, and 25.3% of total cases at Wan Jing Hospital. Of these cases, 67% were fe-

TABLE 1. GROUPED PREVALENCE COMPARISON WITH OTHER ACUPUNCTURE CLINICS

Systems	BHTCM (n = 563)	WJH (n = 233)	Germany (n = 1597)	Australia (n = 274)	U.K. (n = 664)	China (n = 373)
Neurologic	66.0%	55.8%	42.1%	8.7%	10.2%	34.2%
Musculoskeletal	9.8%	19.7%	27.1%	35.7%	35.2%	58.0%
Psychologic	3.4%	5.2%	3.0%	5.3%	9.8%	3.8%
Respiratory	0.0%	2.1%	6.3%	11.1%	11.4%	—
Cardiovascular	3.9%	0.9%	—	3.4%	4.4%	—
Gynecologic	3.9%	3.9%	—	5.3%	6.3%	—
GI/Urologic	2.3%	1.3%	4.1%	9.6%	6.8%	4.0%
Dermatologic	0.7%	0.0%	—	4.8%	5.0%	—
Other	10.0%	11.1%	17.4%	15.9%	10.8%	—

Systems represented by the main complaints were compared for the Beijing Hospital of Traditional Chinese Medicine (BHTCM) and Wan Jing Hospital (WJH), as well as outpatient clinics and hospitals in Germany (Melchart et al., 1997), Australia (Bensoussan et al., 1996), United Kingdom (Wadlow et al., 1996), and Shandong, China (Xu, 2001). All clinics were similar in seeing predominantly neurological or musculoskeletal conditions, though there was variability as to which of these systems was most prevalent.



**FIG. 1.** Main complain prevalence at outpatient acupuncture departments of Beijing Hospital of Traditional Chinese Medicine (BHTCM) Beijing, China, and Wan Jing Hospital (WJH) Beijing, China. Bell's palsy and cerebrovascular accident (CVA, stroke) rehabilitation predominated at both clinics, although other conditions were quite varied and represented multiple systems. The data were also subdivided by gender. Overall, the majority of patients were female, while the majority of patients treated for rehabilitation were male.

male at the Beijing Hospital of TCM, while only 32% were female at Wan Jing Hospital. The second most common condition was also the same at both hospitals—cerebrovascular accident (CVA, stroke) rehabilitation. These treatments represented 11.9% of treatment at the Beijing Hospital of TCM

and 12.0% of treatments at Wan Jing Hospital. For these treatments a similar gender trend was found at both hospitals: 83.6% male at Beijing Hospital of TCM and 71.4% male at Wan Jing Hospital.

Other common main complaints at the Beijing Hospital

of TCM included strabismus (5.3%), sciatica (4.1%), headache (3.6%), and tinnitus (3.6%). At the Wan Jing Hospital, other commonly seen conditions included back pain (11.2%), headache (4.3%), diabetes (4.3%), and cervical spondylosis (3.9%).

General statistical compilations (Table 2) demonstrated that more female than male patients visited both clinics: 74.1% female at Beijing Hospital of TCM and 61.4% female at the Wan Jing Hospital. The average number of treatments per day by Dr. Zhu at the former clinic was 31.3 (7.0 patients per hour), where he needled 12.2 acupoints per treatment. In contrast, Dr. Xia at the Wan Jing hospital clinic saw 46.6 patients per day (10.4 patients per hour) where she needled, on average, 14.7 acupoints per treatment.

Patients at both hospitals were usually instructed to come for treatment every day or every other day, depending on the chronicity of their condition. On occasion, Chinese herbal medicine prescriptions were used to augment the acupuncture treatment. As the number of treatments per hour was quite high at both sites, the average time allotted to the patient-practitioner interaction was usually less than 5 minutes per patient. This was especially true if the practitioner was familiar with the patient and their condition from past sessions. Kleinman (1980) reported a similar finding where the mean patient intake time of 200 traditional Chinese physicians in Taiwan was 7 minutes, 35 seconds.

A comparison table listed main complaint prevalence observed at both sites in Beijing, as well as other outpatient clinics throughout the world (Table 1). Neurologic and musculoskeletal complaints predominated at all clinics, though main complaints from other systems were also seen. Except for the German clinic data, Western clinic acupuncturists saw more musculoskeletal complaints compared to China, where neurologic complaints predominated.

In the studies that could not be included in our comparison table, Bell's palsy was noted as contributing significantly to the fourth most common category in one U.S. study (Dung, 1985). No other nonincluded study noted this main complaint. Cassidy et al. (1998) reported that U.S. acupuncture patients listed musculoskeletal conditions as contribut-

ing to their complaints (58.8%) almost as frequently as "mood care" and "well-care" conditions (66.3% and 63.0%, respectively). "Head and neck pain," which included some neurologic conditions, was included by 31.7% of patients. Diehl et al. (1997) reported that U.S. acupuncturists treat pain (mostly musculoskeletal) much more commonly (80%–93%) than other conditions including chronic sinusitis (69.2%), gastrointestinal disorders (65.9%), and smoking cessation (62.7%). Aside from migraine headaches (84.7%), the authors did not report any other neurologic conditions as contributing significantly to the total. Data from Taiwan showed that 92% of acupuncture patients utilized this healing modality for pain relief, while 7.4% utilized acupuncture for "general health maintenance" (Chou et al., 1998). The study from Israel reported that musculoskeletal main complaints (44%) were twice as common as neurological/emotional complaints, the second highest category (22%); while other complaints (34%) were noted only as "ear-nose-throat (ENT), breathing, digestion, skin, etc." (Soffer et al., 2001).

DISCUSSION

This study represents a prospective, primary source account of patient visits to two outpatient clinics in Beijing, China. An analysis of the data collected from both sites demonstrated several interesting trends (Table 1). These trends included the following: (1) neurologic complaints predominated, (2) doctors see a large number of patients per day, (3) the majority of patients overall were female (more so at Beijing Hospital of TCM than at Wan Jing Hospital), while (4) the majority of patients treated for CVA rehabilitation were predominantly male.

Main complaint prevalence

Neurologic main complaints predominated in the patients recorded at both clinics. Furthermore, Bell's palsy, a form of facial paralysis, comprised the majority of these com-

TABLE 2. GENERAL CHARACTERISTICS OF DATA GATHERED AT TWO BEIJING ACUPUNCTURE CLINICS

	<i>Beijing Hospital of TCM</i>	<i>Wan Jing Hospital</i>
Days of observation	18	5
Total # treatments	563	233
Total male Tx.	146 (25.9%)	90 (38.6%)
Total female Tx.	417 (74.1%)	143 (61.4%)
Avg. # Tx per day	31.3	46.6
Avg. # Tx per hour	7.0	10.4
Avg. # Acupoint/Tx.	12.2	14.7

A summary of the results of data collection at both the Beijing Hospital of Traditional Chinese Medicine (BHTCM), and Wan Jing Hospital (WJH). Five hundred and sixty-three (563) treatments (Tx) were logged at the BHTCM, while 233 were logged at the WJH. Both clinics saw a large number of patients per day, a majority of whom were female.

plaints. The commonality of this condition in Beijing acupuncture clinics can be attributed to several factors. Firstly, the cause of most cases is thought to be viral in nature and endemic to northern China. Second, there seems to be a widespread belief that acupuncture is especially efficacious for this condition, which is demonstrated by the fact that most of the Bell's palsy patients came for acupuncture as a first line of treatment within 3 days of noticing symptoms. Furthermore, Xu (2001), in his study of an outpatient clinic in Jinan, China (also northern China), also specifically noted Bell's palsy. In his study, Bell's palsy, in addition to other peripheral neurologic complaints, accounted for 17.1% of the total. However, the phenomenon of an overabundance of Bell's palsy cases in acupuncture clinics may be unique to northern China. (Anecdotally, one of the authors [V.N.] was told by informants that acupuncture clinics in southern China do not see quite so many cases of Bell's palsy.) No other study from clinics in the United Kingdom, Germany, or Australia noted Bell's palsy as significantly contributing to the total. On the other hand, these studies did always report neurologic conditions as prominent in the patient totals (from most prevalent in the Germany study, to fourth most prevalent in the Australia study).

Musculoskeletal pain, which included foot, knee, hip, back, lower back, scapula, shoulder, elbow, and hand pain, was the second most common main complaint at both outpatient clinic sites. In contrast, most other reports from international clinics listed musculoskeletal conditions as the most prevalent main complaint. The only other study that listed neurologic conditions as more common than musculoskeletal conditions was the study from Germany (which notably included the greatest number of patients). In addition, the majority of musculoskeletal pain cases seen in the two Beijing clinics were chronic in nature. In general, chronic pain is much more commonly seen in acupuncture clinics than acute pain (Woollam and Jackson, 1998) and, in fact, the chronicity of the condition (pain or otherwise) was an important factor for choosing Chinese medicine over, or in addition to Western medicine for patients in both clinic sites.

In the studies that could not be included in our comparison table (United States, Taiwan, Israel), pain, and particularly musculoskeletal pain, predominated. Neurologic complaints were much less frequently represented, while conditions such as "well care" and "smoking cessation" appeared much more prominently in the United States than in our data from Beijing, China. Sociologic factors may play an important role in the identification of a main complaint, as patients from China tend to somatize their problems more so than in other countries (Kleinman, 1977, 1980; Melcham and Kleinman, 1980; Ots, 1990).

### *Patient load*

The number of patients seen per day by the acupuncturist-physicians was high at both sites. The number of patients

(or treatments) per day at the Beijing Hospital for TCM was 31.3, while the average number of patients at Wan Jing Hospital was 46.6 patients per day. These figures are all the more striking when considering the fact that all patient visits were logged from 8:00 AM to 12:30 PM. Few patients visit hospital outpatient clinics in Beijing in the afternoon. This high patient load meant that doctor-patient interaction was brief and systems were in place to ensure efficiency in patient flow. This included assistants and students who handed needles to the acupuncturist, removed needles after the prescribed time period, applied moxabustion (stimulation of the acupuncture point with heat by burning *artemesia vulgaris*), and performed administrative duties. This high patient load is significantly different from acupuncture practice in the United States. Cherkin et al. (2002a) noted in a random telephone survey report of 217 acupuncturists in the states of Washington and Massachusetts that acupuncturists see an average of 27.0 ( $\pm$  21.1) and 33.7 ( $\pm$  24.7) patients per week. When adjusted for working clinic time, acupuncturists saw 1.2 patients per hour at both U.S. clinics. However, at the Beijing Hospital for TCM, the number of patients seen per hour was 7.0, while the average number of patients per hour at Wan Jing Hospital was an even higher 10.4. This difference is quite significant and reflects the significant differences in how acupuncture care is organized and administered in outpatient settings in China and the United States. Additionally, the duration of acupuncture treatments was calculated by Cherkin et al. (2002a) to be a median of 60 minutes, also higher than the 25 minutes allotted to most patients at the two Beijing, China clinics. This treatment time included the time that needles are inserted and the patient is resting. Thus some of the difference in visit time may be caused by the possibility that patients are commonly treated on both front and back sides in Western acupuncture clinics, while almost all visits in both Beijing clinics involved one-sided (either front *or* back) treatments. Nonetheless, other qualitative anthropological studies have also noted the significant increase in patient-provider interaction time between Western practitioners as compared Chinese practitioners of acupuncture in the United States (Barnes, 1998). The brief patient-provider interaction time and the preponderance of one-sided treatments makes the high number of needled acupoints per treatment (12.2 and 14.7) even more notable. Considering many of these points are needled bilaterally, these data suggest a quick and efficient needling technique for the acupuncturists in this study.

### *Gender trends*

There were several interesting gender trends in effect at both clinic sites in this study. More women than men visited both the Beijing Hospital of TCM (74.1% female), and Wan Jing Hospital (61.4% female) clinics. The predominance of women patients has been seen in other clinics in China and the West. Melchart et al. (1997) found 63.8% fe-

male patients in his study, while Wadlow and Peringer (1996) noted 69% female patients in the United Kingdom and Xu (2001) found 65.7% female patients in Shandong, China. In addition, all other studies not included in the comparison table, also noted a predominance of female patients in acupuncture clinics. However, in spite of this general gender-difference trend, the majority of CVA rehabilitation patients were male in both Beijing clinic sites—83.6% male at Beijing Hospital of TCM and 71.4% male at Wan Jing Hospital. Xu also found this gender difference in CVA rehabilitation patients in Shandong, China—61% male. This significant difference may be the result of the higher incidence of stroke in male population. However, the majority of these patients came to the clinic with their family (wives, children) and, as suggested by one of the physicians at the clinic, there may also be a higher urgency placed on the recuperation of a male family member than a female one.

### Limitations

Limitations of this study include the risk that patient self-selection may have existed because of the limited number of acupuncturist-physicians observed at the clinics. Different acupuncturists become famous for treating certain disorders and thus attract more patients with these conditions (sometimes from distant provinces in China). However, one of Dr. Xia's specialties at Wan Jing Hospital was known to be rheumatoid arthritis, and was not highly represented in the total. In addition, seasonal variability in main complaint prevalence may also exist. For instance, viral infections, more common in the winter months, may have ultimately led to the high prevalence of patients with viral Bell's palsy at both clinics. However, Xu recorded his data from patient files accumulated over a 1-year period in Shandong, China, and also found a notable population of Bell's palsy cases, although admittedly not as high (< 17.1%) as that found in the two Beijing clinic sites (> 20%). Other limitations include the fact that our geographic sample is a sample of convenience, which might impact on the generalizability of the data. A random selection of hospital locations and data collection days would have been optimal; however, the complexity of the Chinese health care system prevented this methodological design. Another option would have been to track patients as a cohort as well as treatments, however, the fast-paced and chaotic flow of these clinics, as well as the absence of hospital-based patient records for these clinics (in Beijing, as elsewhere in China, patients carry their own records) prevented this design as well. Also, data from other studies were gathered by different methodologies, which may have impacted their findings and their comparability. Nonetheless, these data were utilized as it represents the only information available. Also, it should be noted that the German report was the only inpatient study and the only study in the West where insurance covered most of the cost. Many of these patients were referred by physician acupuncturists

in private outpatient practice who may have generated unusual utilization patterns—for example, referring only refractory patients or referring based on the patient's insurance coverage (Melchart et al., 1997, 1999).

## CONCLUSION

The main complaints seen in acupuncture outpatient clinics throughout the world likely result from a combination of inherent disease prevalence, as well as patients' attitude toward what acupuncture can treat successfully. Neurologic complaints predominate in the three Chinese clinics included in this study and the German hospital. However, musculoskeletal complaints were most common in data from Australia, the United Kingdom, and the United States. While this represents a prospective and primary source evaluation of the patients who seek acupuncture treatment in an outpatient clinic in Beijing, China, and provides information that is comparable to other utilization reports, more studies are needed to understand which patients and how and why such patients seek acupuncture care.

## ACKNOWLEDGMENTS

We would like to acknowledge Drs. Na Hong and Yu-Qing Xia of WanJing Hospital (Beijing, China) and Dr. Wei Zhu of the Beijing Hospital of TCM (Beijing, China), without whom this study would not be possible. This research was funded with generous support from National Institutes of Health grants P01 AT002048-A01 and K01 AT02166-01.

## REFERENCES

- Barnes L. The psychologizing of Chinese healing practices in the United States. *Culture Medicine and Psychiatry* 22:413-443.
- Bates DG. Why not call modern medicine "alternative"? *Perspect Biol Med* 2000;502-518.
- Bensoussan A, Myers S. *Towards A Safer Choice: The Practice of Traditional Chinese Medicine in Australia*. Campbelltown, Australia: Faculty of Health, University of Western Sidney Macarthur, 1996.
- Cassidy CM. Chinese medicine users in the United States. Part I: Utilization, satisfaction, medical plurality. *J Altern Complement Med* 1998;4:17-27.
- Cherkin DC, Deyo RA, Sherman KJ, Hart LG, Street JH, Hrbek A, Cramer E, Milliman B, Booker J, Mootz R, Barassi J, Kahn JR, Kaptchuk TJ, Eisenberg DM. Characteristics of licensed acupuncturists, chiropractors, massage therapists, and naturopathic physicians. *J Am Board Fam Pract* 2002a;15:378-390.
- Cherkin DC, Deyo RA, Sherman KJ, Hart LG, Street JH, Hrbek A, Davis RB, Cramer E, Milliman B, Booker J, Mootz R, Barassi J, Kahn JR, Kaptchuk TJ Eisenberg DM. Characteristics of visits to licensed acupuncturists, chiropractors, massage therapists,

- and naturopathic physicians. *J Am Board Fam Pract* 2002b; 15:463–472.
- Chou P, Lai MY, Chung C, Chen JM, Chen CF. Acupuncture utilization in Taiwan. *Zhonghua Yi Xue Za Zhi (Taipei)* 1998;61: 151–158.
- Crozier R. *Traditional Medicine in Modern China*. Cambridge: Harvard University Press, 1968.
- Diehl DL, Kaplan G, Coulter I, Glik D, Hurwitz EL. Use of acupuncture by American physicians. *J Altern Complement Med* 1997;3:119–126.
- Dung HC. Biostatistical profiles of individuals seeking acupuncture treatment in the United States. *Chin Med J* 1985;98: 835–840.
- Farquhar J. Market magic: getting rich and getting personal in medicine after Mao. *Am Ethnologist* 1996a;23:239–257.
- Farquhar J. Medicine and the changes are one: an essay on divination healing with commentary. *Chin Sci* 1996b;3:107–134.
- Harrall S. Pluralism, performance and meaning in Taiwanese healing: A case study. *Culture Med and Psychiatry* 1991;15L:45–68.
- Hsu E. *The Transmission of Chinese Medicine*. Cambridge: Cambridge University Press, 1999.
- Kaptchuk T. *Acupuncture: History, context and long-term perspective*. NIH Consensus Development Conference on Acupuncture., Bethesda, MD: National Institutes of Health, 1997.
- Kaptchuk T. *The Web That Has No Weaver: Understanding Chinese Medicine*. Chicago: Contemporary Books, 2000.
- Kaptchuk T, Eisenberg T, Komaroff A. Research: Finding Out What Works. *Newsweek* 2002;73:73.
- Kaptchuk TJ. Acupuncture: Theory, efficacy, and practice. *Ann Intern Med* 2002;136:374–383.
- Kaptchuk TJ, Eisenberg DM. Varieties of healing. 1: Medical pluralism in the United States. *Ann Intern Med* 2001;135:189–195.
- Klein L, Tractenberg A. *Acupuncture: January 1970 throughout October 1997*. Bethesda, MD: National Library of Medicine, DHHS, PHS, NIH, NLM, 1997.
- Kleinman A. Depression, somatisation and the new cross-cultural psychiatry. *Soc Sci Med* 1977;11:3–10.
- Kleinman A. *Patients and Healers in the Context of Culture*. Berkeley: University of California Press, 1980.
- Lei S. *When Chinese Medicine Encountered the State: 1910–1949*. Chicago: University of Chicago, 1998.
- Lucas A. *Chinese Medical Modernization: Comparative Policy Continuities, 1930's–1980s*. New York: Praeger, 1982.
- Mechanic D, Kleinman A. Ambulatory medical care in the People's Republic of China: An exploratory study. *Am J Public Health* 1980;70:62–66.
- Melchart D, Linde K, Liao JZ, Hager S, Weidenhammer W. Systematic clinical auditing in complementary medicine: rationale, concept, and a pilot study. *Altern Ther Health Med* 1997;3: 33–39.
- Melchart D, Linde K, Weidenhammer W, Hager S, Liao JZ, Bauer R, Wagner H. “Use of traditional drugs in a hospital of Chinese medicine in Germany.” *Pharmacoepidemiol Drug Safety* 1999;8:84–89.
- NIH (1998). “NIH Consensus Conference Acupuncture.” *JAMA* 1998;280:1518–1524.
- Ots T. The angry liver, the anxious heart and the melancholy spleen: The phenomenology of perceptions in Chinese culture.” *Culture Med Psychiatry* 1990;14:21–58.
- Scheid V. The globalization of Chinese medicine. *Lancet* 1999; 354:(Suppl):SIV10.
- Scheid V. *Chinese Medicine in Contemporary China: Plurality and Synthesis*. Durham, NC: Duke University Press, 2002.
- Soffer T, Press Y, Peleg A, Friger M, Ganel U, Peleg R. Characteristics of patients at a complementary medicine clinic in Beer Sheva: Summary of the first two years of operation. *Isr Med Assoc J* 2001;3:584–588.
- Squires S. Acupuncture: stick with proven uses, trained pros. *Washington Post* March 12, 2002: F1.
- Taylor K. *Medicine of Revolution: Chinese Medicine in Early Communist China (1945–1963)*. Cambridge: Cambridge University, 2000.
- Unshuld P. *Medicine in China: A History of Ideas*, Berkeley: University of California Press, 1985.
- Vickers A. Bibliometric analysis of randomized trials in complementary medicine. *Complement Ther Med* 1998;6:185–189.
- Vickers A, Goyal N, Harland R, Rees R. Do certain countries produce only positive results? A systematic review of controlled trials. *Control Clin Trials* 1998;19:159–166.
- Wadlow G, Peringer E. Retrospective survey of patients of practitioners of traditional Chinese patients in the U.K. *Complement Ther Med* 1996;4:1–7.
- Woollam CH, Jackson AO. Acupuncture in the management of chronic pain. *Anaesthesia* 1998;53:593–595.
- Xu X. Acupuncture in an outpatient clinic in China: A comparison with the use of acupuncture in North America. *South Med J* 2001;94(8):813–816.

Address reprint requests to:

*Vitaly Napadow, Ph.D.*

*Martinos Center for Biomedical Imaging*

*CNY-2301 13th Street*

*Boston, MA 02129*

*E-mail: vitaly@nmr.mgh.harvard.edu*

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.