Acupuncture in California
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Introduction

Acupuncture is an ancient healing profession that is growing in popularity and acceptance in the U.S. as a complement or an alternative to western medicine. Although it is relatively low on the list of all complementary and alternative therapies (including self-help treatments) utilized by consumers, acupuncture has been identified as one of the more common alternative therapies for which users consult a practitioner and the complementary and alternative medicine therapy most frequently recommended by physicians.1

Acupuncture can be narrowly defined as a treatment modality and broadly described as a comprehensive approach to health and healing. Both these perspectives can be found in California. As defined in California code:2

‘Acupuncture’ means the stimulation of a certain point or points on or near the surface of the body by the insertion of needles to prevent or modify the perception of pain or to normalize physiological functions, including pain control, for the treatment of certain diseases or dysfunctions of the body and includes the techniques of electroacupuncture, cupping, and moxibustion.*

With the licensure act, the legislature also recognizes acupuncture as a comprehensive healing system and sees the act as “a framework for the practice of the art and science of oriental medicine through acupuncture.” This view is reflected in the licensed acupuncturist’s scope of practice. While far from all-encompassing, an acupuncturist’s license authorizes the holder to engage in the practice of acupuncture and also “[t]o perform or prescribe the use of oriental massage, acupressure, breathing techniques, exercise, heat, cold, magnets, nutrition, diet, herbs, plant, animal, and mineral products, and dietary supplements [but not including synthetic compounds, controlled substances or dangerous drugs] to promote, maintain, and restore health.” As described by the California Board of Acupuncture:

Far more than a technique of inserting tiny threadlike needles along meridian lines of the body, acupuncture’s complex system of diagnostic methods take into consideration the person as a whole, not just isolated symptoms. Acupuncture is practiced based on discerning the bodies’ "pattern of disharmony" and treating accordingly….

Acupuncture treats and strengthens the physical condition and controls pain. The aim, as practiced in oriental medicine, is not necessarily to eliminate or alleviate symptoms. The objective, rather, is to increase both the ability to function and the quality of life.3

Work and practice patterns

Some people see acupuncturists as their primary health care providers; others see them for selected health care concerns or by referral from and in conjunction with care from another health care practitioner.4 In a recent Harris survey of Americans who use acupuncture, 58% sought treatment for a disorder of the bones, muscles, joints or nervous system (e.g. arthritis, headaches, or low back/neck/should pain).5 The World Health Organization lists a number of conditions that are treatable through acupuncture, including respiratory and bronchopulmonary diseases and orthopedic, gastrointestinal and neurologic disorders.6 The National Institutes of Health’s 1997 landmark consensus statement on acupuncture found that:

Promising results have emerged… showing efficacy of acupuncture in adult post-operative and chemotherapy nausea and vomiting and in post-operative dental pain. There are other

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situations such as addiction, stroke rehabilitation, headache, menstrual cramps, tennis elbow, fibromyalgia, myofascial pain, osteoarthritis, low back pain, carpal tunnel syndrome, and asthma where acupuncture may be useful as an adjunct treatment or an acceptable alternative or be included in a comprehensive management program.\(^7\)

In a survey and occupational analysis of acupuncture practice, 65% of California licensed acupuncturists indicated their focus of practice was general practice; 15% reported their focus to be pain management; a total of 4% reported their focus area to be substance abuse rehabilitation, HIV/AIDS, hepatitis, paralysis or other; and 16% did not give a response on this question. The analysis also identified the details of the tasks and knowledge associated with five formal content areas of practice: “patient assessment, developing a diagnostic impression, providing acupuncture treatment, prescribing herbal medicinals, and regulations for public health and safety”. Together, these areas describe the practice of the licensed California acupuncturist and, with their associated weights, will serve as the examination outline for the California Acupuncture Licensing Examination (see sidebar).\(^8\)

Although some hospitals and medical clinics have added licensed acupuncturists to their staff, the California job analysis found that three-quarters of the state’s acupuncturists are in solo practice. This number is higher than national estimates of 50% to 60%\(^9\) and considerably higher than the percentage of medical doctors in solo practice (California estimate: 34%).\(^10\) Few acupuncturists practice in large groups or institutional settings and those that do work with other professionals usually practice with other acupuncturists or providers of complementary and alternative health care.\(^11\)

**Supply, demand and demographic characteristics**

About 6300 acupuncturists are licensed and regulated by the California Board of Acupuncture and the profession is growing.\(^12\) About 600 people per year have passed the California examination for the past several years.\(^13\) California accounts for at least one-third of the total U.S. acupuncture workforce, estimated to be between 14,000 and 17,000.\(^14\)

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**California Acupuncturists**  
**Content Areas of Practice**\(^15\)

**Patient Assessment (25%)** The practitioner obtains the patient’s history and performs a physical examination to determine presenting complaint and interrelationship among symptoms. The practitioner determines the effects of Western medications the patient is taking. The practitioner uses modern diagnostic testing procedures to augment traditional assessment methods.

**Developing a Diagnostic Impression (20%)** The practitioner evaluates clinical manifestations to determine the relative strength and progression of disease. The practitioner evaluates patterns of disharmony according the theories of Oriental medicine to arrive at a final diagnosis. The practitioner demonstrates a knowledge of how pathology in Western medicine relates to disease in traditional Oriental medicine.

**Providing Acupuncture Treatment (29%)** The practitioner implements knowledge of the therapeutic effects of points and combinations of points in modifying pain, normalizing functioning, and treating disharmonies. The practitioner uses anatomical landmarks and proportional measurements in locating points on or near body surfaces. The practitioner identifies clinical indications for using alternative treatment modalities.

**Prescribing Herbal Medicinals (17%)** The practitioner prescribes herbs and formulas based on diagnostic criteria. The practitioner modifies formulas and dosage of herbs according to patient’s condition. The practitioner identifies situations and conditions where herbs and formulas would produce undesired effects.

**Regulations for Public Health and Safety (9%)** The practitioner understands and complies with laws and regulations governing hygiene and the control of pathogenic contaminants. The practitioner applies legal guidelines for office practices and maintenance of patient records. The practitioner adheres to legal requirements for reporting known or suspected child, elder, or dependent adult abuse.
Of California’s 6300 licensed acupuncturists, about 5700 have California addresses.\(^6\) Almost 88\% indicated that they practiced in urban settings\(^5\) and licensure data shows that 86\% of the state’s acupuncturists are located in the 13 largest urban counties (Alameda, Contra Costa, Fresno, Los Angeles, Orange, Riverside, Sacramento, San Bernadino, San Diego, San Francisco, San Mateo, Santa Clara, and Solano) compared to 78\% of the state’s general population. Over 40\% of the state’s licensed acupuncturists are in Los Angeles County alone.\(^18\)

California’s overall ratio of total acupuncturists to population is 17 to 100,000 (up from an estimated 11 per 100,000 population in 1994\(^2\)) but the ratios vary significantly by region and by county (see maps). By region,* acupuncturists tend to be located along the coastal areas. Regions with the highest ratios are Los Angeles (26 acupuncturists per 100,000), the 10-county Bay Area (23:100,000), and Orange (20:100,000). Analysis by county is also telling. Even the high ratio in Los Angeles County, with its correspondingly high numbers of acupuncturists and schools, pales in contrast to the highest ratios. Santa Cruz, Marin and San Francisco counties (each with an acupuncture school in the county or nearby) have 62, 52 and 51 acupuncturists per 100,000 population respectively, all higher than the ratios of patient-care primary care medical doctors to population in 16 California counties.\(^20\) At the other extreme, 31 of California’s 58 counties have ten or fewer licensed acupuncturists, including ten counties without a single acupuncturist.

* The regions, useful for workforce analysis, with their county make-ups, are (first figure after the region is the ratio of acupuncturists to 100,000 population for the region; the number in parentheses after each county is the county’s ratio) the Bay Area - 23 (Alameda (23), Contra Costa (10), Marin (52), Napa (11), San Francisco (51), San Mateo (14), Santa Clara (17), Solano (3), Sonoma (19), Santa Cruz (62)), North Valley/Sierra – 6 (El Dorado (6), Nevada (21), Placer (6), Sacramento (5), Sierra (0), Sutter (0), Yolo (7), Yuba (0)), Central Valley/Sierra – 2 (Alpine (0), Amador (3), Calaveras (0), San Joaquin (2), Stanislaus (1), Tuolumne (9)), Inland Empire – 4 (Inyo (5), Mono (23), Riverside (4), San Bernadino (4)), Orange – 20 (Orange (20)), Central Coast - 11 (Monterey (6), San Benito (2), San Luis Obisbo (8), Santa Barbara (22), Ventura (10)), North Counties – 9 (Butte (6), Colusa (0), Del Norte (4), Glenn (0), Humboldt (15), Lake (10), Lassen (3), Mendocino (28), Modoc (11), Plumas (10), Shasta (4), Siskiyou (16), Tehama (0), Trinity (0)), South Valley/Sierra – 1 (Merced (0), Fresno (1), Kern (2), Kings (0), Madera (2), Mariposa (12), Tulare (2)), Los Angeles - 26 (Los Angeles (26)), San Diego - 15 (Imperial (1), San Diego (16)).

Note that a very low county population can result in a misleadingly high ratio calculation (e.g. Mono county’s 23:100,000 population ratio is based on only 3 acupuncturists and less than 13,000 population)
Much of the concentration ratios of acupuncturists to population could be due to demographic profiles of providers and patients, including race/ethnicity and language skills (note high rates of tests taken in Mandarin and Korean discussed below). Four of the ten counties with the highest ratios of acupuncturists to population (Alameda, Los Angeles, Orange, San Francisco) are also among the top ten counties ranked by order of percentage of Asian/Pacific Islander representation in the general population. Other factors might explain the concentrations. For example, Santa Cruz and Marin counties, with the highest ratios of acupuncturists to population, have relatively low percentages of Asian/Pacific Islanders and are not among the state’s most urban counties; however, they are among the wealthiest counties in the state.

Demographic information on gender or race/ethnicity of licensed acupuncturists is not available from the state. A 1998/99 national survey of licensed acupuncturists in Massachusetts and Washington state found the licensed acupuncturist workforce to be close to 60% female. The same national sampling survey found that about 20% of the acupuncturists were nonwhite and about 90% of these acupuncturists were Asian or Pacific Islander.

California may have even higher percentages of Asian practitioners as forty-seven percent of the people who passed the exam in 2002 took it in Mandarin or Korean. In a 2001 job analysis of California acupuncturists, 18% and 20% indicated Chinese and Korean respectively were their primary spoken languages. In contrast, over 90% of the people who took and passed National Certification Commission on Acupuncture and Oriental Medicine’s (NCCAOM) comprehensive written acupuncture exam (the exam on which most other states rely for licensure purposes) in 2002 did so in English.

In addition to licensed acupuncturists, some other health care practitioners may practice acupuncture in California. California physicians may practice acupuncture within the scope of their medical license. Licensed dentists and podiatrists may offer acupuncture within their respective legal scopes of practice if they have completed an acupuncture course approved by their respective licensing boards. Aside from these professional categories, no one else may legally practice acupuncture.

Estimating how many medical doctors offer acupuncture is challenging because most states, including California, view acupuncture as within the scope of the medical license and do not specifically track which doctors provides acupuncture. The American Academy of Medical Acupuncture, a professional society for trained physician acupuncturists, has 2000 practice members (members who have documented a minimum of 200 hours of formal training), 400 of whom are in California. A few years ago, others estimated the total number of U.S. medical doctors who have studied formally and incorporate acupuncture into their practices to be around 3000. The Helms Medical Institute at the University of California, Los Angeles alone has trained 4500 physicians in its acupuncture program since 1980 and its director estimates that a total of 6000 US doctors have been trained and are employing acupuncture in their practices. The number of dentists and podiatrists who provide acupuncture services in California is estimated to be very small.

The overall demand for complementary and alternative health care, including acupuncture and oriental medicine, has been growing. And, while rough national acupuncture utilization estimates have been made, California-specific acupuncture utilization and demand rates are not known. The demand for acupuncture appears to be almost exclusively for private consultations. There is a very limited job market for acupuncturists, with the only significant employers being acupuncture schools and drug treatment programs.

A 1998-99 survey found that 31% of U.S. Health Maintenance Organizations (HMOs) offered acupuncture to their enrollees and other HMOs intended to include it in the future. However, coverage may be limited in amount, in type of benefit, and by type of provider (in some cases, acupuncture coverage is limited to services provided by medical doctors).

California-specific data on fees charged and salaries are not available. Because most licensed acupuncturists are self-employed, earnings likely vary widely by geographic location, expertise and individual. A 2002 magazine article on U.S. salaries included profiles of two acupuncturists, one of whom made $60,000 per year and the other $150,000. National estimates of fees charged by acupuncturists range from $30 or $40 to well over $100 per treatment, with initial visits often higher than follow-ups. In Massachusetts, average initial fees were estimated at $78 and follow-up visits at $54.
Education and training

California licensed acupuncturists (LAc) are trained in acupuncture and oriental medicine as well as western medicine. They complete a minimum of 2348 hours of education and training, usually in a four academic-year program. The curriculum must include 400 hours in the basic sciences, over 100 hours in clinical sciences, medicine and western pharmacology; over 600 hours in oriental medicine and acupuncture; 300 hours in traditional oriental herbology and 800 hours of clinical instruction and practice.\(^34\)

Recent legislation mandates that California-approved schools offer a minimum of 3,000 hours of study to students entering programs beginning in 2005.\(^35\) The bill was hotly debated within the professional community and, while several programs already have close to or more than 3,000 curriculum hours, the new requirements may prove to be challenging to other schools. The effect of the increased hours on program costs and student recruitment is unclear.

The California Acupuncture Board approves the schools from which California LAc’s must have graduated. These programs offer Master of Science degrees (usually in Acupuncture, Oriental medicine or Traditional Chinese Medicine), which are considered the first professional degree. Thirty schools and training programs are currently approved by the Board –16 in California and 14 in other states.\(^36\) Most of these are also accredited by the Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM), the agency on which other states rely, but California recognizes four that are not ACAOM-accredited and ACAOM recognizes many that are not California-approved.

Seven of California’s 16 approved schools are in Los Angeles county; two each in Orange and Alameda, and one each in San Diego, San Francisco, San Mateo, Santa Barbara and Santa Cruz. All of the approved acupuncture schools are private institutions; the state administers none of them. Nationally, over 50 U.S. programs have been accredited or granted candidacy status by the ACAOM but graduates from approximately 20 of these ACCAOM-accredited programs are not eligible to sit for the California licensing exam, either because the program does not meet the California board’s criteria (for example, California requires a higher minimum number of curriculum hours than ACAOM) or the program has not applied for approval. At least two U.S. acupuncture programs have closed in the past year.

Several medical schools, including the University of California, Los Angeles and University of Southern California, offer acupuncture courses for medical doctors. While some of these continuing medical education courses are very brief, others are longer programs of 200-300 hours. For example, The Helms Medical Institute at UCLA offers 220-hour and 300 hour curricula (generally completed within three to six months) that include lectures, home study and videocourse viewing, and supervised clinical training. The goal of the Helms/UCLA program is to enable the physician “to employ acupuncture in [his or her] medical practice immediately after the clinical unit and to be well prepared for later study in any specialized or advance aspects of acupuncture.”\(^37\)

Regulation and certification

California acupuncturists are licensed and regulated by the Acupuncture Board, an autonomous body under the umbrella of the state’s Department of Consumer Affairs.

To be an LAc in California, one must qualify for and then pass the written California Acupuncture Licensing Examination administered by the Board. An individual may qualify to take the exam via one of three ways:

- Complete the necessary curriculum requirements and graduate from an Acupuncture Board-approved school.
- Complete a Board-approved tutorial program.
- Complete a foreign education training program which is equivalent to the curriculum required at an Acupuncture Board approved school.

The laws and regulations governing LAc’s can be found in the Acupuncture Licensure Act and the Acupuncture Board’s regulations.\(^38\) LAc’s must renew their license every two years by paying a $325 renewal fee and documenting completion of at least 30 continuing education (CE) unit hours within the two-year period (inactive status is available).

Nationally, over forty states and the District of Columbia recognize the practice of acupuncturists through licensure, certification, or registration, usually with authority to work independently.\(^39\) Most U.S. states that license acupuncturists require graduation from an ACAOM-accredited program. In ad-
dation, virtually all other states require passage of the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM) exam and/or certification by NCCAOM for state licensure.

Critical issues and policy concerns - Several research and policy issues concern California acupuncturists.

Reimbursement Currently the vast amount of acupuncture care is paid out-of-pocket directly by patients and not reimbursed. Research on Massachusetts’s acupuncturists found that only 5% of fees charged were covered by insurance. In a 2002 survey of Americans who have not tried acupuncture, 20% reported they were more likely to try it if their insurance covered it and another 51% said they were more likely to try it if their insurance covered it and their primary medical doctor recommended it. Acupuncture is included as an “optional benefit” under Medical and legislation is being considered that would expand California workers’ compensation authority to acupuncturists. However, legislation introduced last session to mandate insurance coverage did not pass. Legislation has been considered at the federal level to include acupuncture services in Medicare.

Safety and efficacy The risks of acupuncture are well-known, mostly minor and rarely severe: bruising, bleeding, pain, fainting, infection, damage to nerves or vessels, dermatitis, aggravation of symptoms and broken needles. Other more serious events have been reported but are extremely rare. A 2003 systematic review of case reports for the years 1965-1999 found a total of 202 adverse incidents in 98 relevant papers reported from 22 countries. Types of complications identified included infections and organ, tissue and nerve injury; adverse effects included cutaneous disorders, hypotension, fainting and vomiting. Noting a trend toward fewer reported serious complication since 1988, the reviewers concluded that recent practices such as clean needle techniques and more rigorous acupuncturist training requirements have reduced the associated risks and that acupuncture performed by trained practitioners using clean needle techniques is a generally safe practice. Two recent prospective studies conducted in the UK reported very low rates of adverse events.

Despite acupuncture’s long history, clinical research on its effectiveness has been limited for many reasons including competition for funding and the challenges of conducting randomized, controlled trials with a modality that is difficult to control or “blind” (i.e., with acupuncture, both provider and patient know whether a needle is being inserted and where). Dr. Berman’s 2001 overview of the evidence regarding efficacy of acupuncture found a positive trend for many pain conditions, including low back pain and nausea and vomiting. However, in Cochrane Collaborative reviews of trials regarding the efficacy of acupuncture for nine different conditions, existing evidence supported the value of acupuncture for the treatment only of idiopathic (primary) headaches. Nonetheless, numerous individual studies show positive results and ongoing research is promising. The Computer Retrieval of Information on Scientific Projects, a database of federally funded biomedical research projects, lists over 100 acupuncture research projects; 50 of which are currently in progress. Within the National Institutes of Health, the National Center for Complementary and Alternative Medicine (NCCAM), created by the U.S. Congress in 1998, has awarded many extramural grants to researchers around the country studying acupuncture and has selected electroacupuncture for its first intramural study to determine whether it reduces nausea experienced by cancer patients after chemotherapy.

Education and moving to doctoral degree Some current policy debates have focused on the quality, substance and length of educational programs. Several leaders have proposed that acupuncture move from a master’s to a doctoral degree as the first professional degree. The Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM) is surveying the profession to determine support for changing the entry-level standard for licensure and practice to the doctorate. While many argue that the doctoral degree or the addition of more hours to the curriculum are logical and necessary steps for the profession, others question the real impact of such moves on the quality of education or practice, which, they suggest, should be the focus of attention.

Other professionals adding on modality Some acupuncturists are concerned about other professionals – including counselors trained to provide auricular (outer ear) acupuncture in drug treatment programs, chiropractors, and medical doctors – adding acupuncture as a modality to their practices. Like other scope of practice turf battles between health care professions, the incumbent profession (here, acupuncture) argues for preserving the profession and requiring that others meet the same edu-
cation and training standards expected of them while the challenging professions point to the benefits of better care for patients and against monopolistic prac-
tices of the incumbents. Competition for patients and payment is also embedded in both sides’ concerns.

**Job market** The lack of a viable job market for acupuncturists is another concern for the profession. Most professions have private practice opportunities, but few rely almost exclusively on this approach to service. Opportunities for acupuncturists to participate in the health care system in the same way other providers do are limited, restricting their integration into the health care arena and reducing patient access to care. Solo practice also raises questions about lack of peer review and collegial interactions.

**National certification** California does not recognize out-of-state licensing (reciprocity) nor does it accept for licensure those individuals who take and pass the NCCAOM examination. Licensees from other states or those individuals who have passed NCCAOM’s examination may not practice until they have qualified for, taken and passed the California exam. This position is controversial because it inhibits the inter-
state mobility of practitioners and may adversely affect access to providers. Acupuncturists who at-
tended ACAOM-accredited schools and/or received NCCAOM certification cannot practice in California until and unless they have attended a California-approved school and passed the California exam. Many California practitioners have NCCAOM certification in anticipation of possible future relocation since the California exam is not recognized by other states for licensure purposes. With the passage of SB 1951, the California Legislature has asked the Little Hoover Commission to review how acupuncture is regulated in California, including the number of hours required for licensure and the examination that is offered.

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