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Chapter 2

Acupuncture for Mental Health

Francine Rainone, D.O.

> If Qi and Blood exist in abundance and harmony, a person will not get sick. Once there is depression, all kinds of diseases will start to evolve. Therefore all of the body's diseases are caused by depression.
>
> *Zhu Danxi*

There is no mental illness in traditional Chinese medicine (TCM). The phenomena that Westerners call anxiety, depression, and psychosis create suffering in China, as they do throughout the world. However, the conceptual framework of TCM neither isolates soma, psyche, and soul nor severs human beings from each other and the natural world to center its views of health around the individual. My discussion of using acupuncture for "psychiatric disorders" begins with an exploration of the TCM view of the world, the place of humans in it, and the processes of health and disease. Then I briefly review the scientific hypotheses for the efficacy of acupuncture and, finally, discuss the research, indications, and cautions regarding the contemporary use of acupuncture for so-called mental illnesses.

This review is limited in several ways. It focuses on the Chinese approach. The literature searched is almost exclusively in English, whereas the bulk of research activity in this area is published in Chinese and Japanese. And as in any vibrant tradition, there is not unanimity on these topics among practitioners of TCM. I have downplayed the disagreements in the interest of presenting a lu-

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cid, readable introduction to this topic. Technical terms in Chinese medicine are capitalized to distinguish them from their meanings in common English; for example, Cold is a pathogenic factor in TCM rather than a relative temperature, and the Liver is a complex set of functions in the body rather than simply a specific bodily tissue. Despite these limitations I hope this review will provide a conceptual framework for appreciating acupuncture from the perspective of a rigorous intellectual tradition several millennia older than our own.

Overview of Traditional Chinese Medicine

Fundamental Theories of Traditional Chinese Medicine

TCM is based on the twin pillars of *Yin-Yang theory* and *Five Phase theory*. Yin-Yang theory is older and more empirically based, and the two theories do not always yield the same conclusions about etiology, pathophysiology, or treatment of disease. Some schools emphasize one theory or the other, but they are both used to some extent by all TCM practitioners. Rather than being a source of conflict or incoherence, this tension works to add depth and flexibility to clinical practice. TCM is incomprehensible without at least a passing understanding of these theories.

Yin-Yang Theory

Yin-Yang theory has its origins in Taoism and the earliest roots of Chinese culture. A global theory, it is meant to explain everything in the universe. There are five basic tenets to the theory, all of which are expressed by the Taoist symbol reproduced in Figure 2–1. (The following discussion is based on Kaptchuk 1983, pp. 8–11.)

1. Everything in the universe is fundamentally composed of a Yin aspect and a Yang aspect. Accordingly, the circle is divided into black (representing Yin) and white (representing Yang) parts.
2. Every Yin aspect has a Yang aspect and every Yang aspect has a Yin aspect. This is why the black portion of the whole includes a white circle and the white portion includes a black circle.

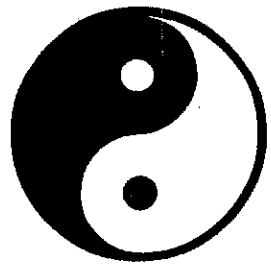

Figure 2–1. The Yin-Yang symbol (Taiji).
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3. Yin and Yang mutually create each other.
4. Yin and Yang balance (control) each other in a homeostatic fashion.

   The third and fourth tenets are expressed by the fact that the Yin portion extends into the Yang part of the circle and the Yang portion extends into the Yin part, and the fact that equal portions of the circle are one or the other color, but their respective territories are not neatly divided in two.
5. Yin and Yang transform into each other. The curving of the line delineating the two areas expresses this dynamism.

Yin-Yang theory establishes several fundamental principles about the nature of reality. First, reality is relational. Nothing (and no one) in the universe exists or can be understood except in relation to everything else. Every duality is a unity of opposites that exists in continuity on a continuum. Second, the universe is continuously changing, as Yin and Yang create, balance, and transform into each other. Third, this change proceeds according to patterns determined by the nature of Yin and Yang. The universe, however diverse it appears, is a unity whose mechanisms function to preserve overall homeostasis. In this sense, the earliest beginnings of ecologic thinking are arguably within early Chinese thought. Using the theory of Yin and Yang, the wise person can make sense of the most confusing situation, can predict what will

happen if natural processes left their development can skillfully intervene to alter the outcome. As in any other field, these fundamental principles are not subject to question or examination, but rather form the framework in which questions about reality are asked and answered.

Applied to medicine, Yin-Yang theory guided the development of thousands of years of empirical observations into a phenomenology of health and disease. Because there is no separation of humans from the environment, the workings of the natural world and the human body are governed by the same principles and subject to the same sorts of disturbance. This idea is clearly expressed by the concept of the six Excesses, or Pernicious Influences, which are Wind, Heat, Cold, Dampness, Dryness, and Summer Heat. When normal forces in the environment become excessive or occur out of season, the balance of Yin and Yang is disturbed. In the struggle to restore balance there may be natural or human disasters. For example, just as unchecked growth in forests generates fires, excess Heat in the body can be damaging. Sometimes a forest fire restores homeostasis in the ecologic system in which it occurs. At other times it destroys all or part of that system. Similarly, someone exposed to Cold (a Yin condition) may subsequently develop Heat in the form of a fever (a Yang condition created by the Yin). If the Heat is intense enough to control the Cold, the body returns to balance. If the Heat rages out of control, the person may go into shock and become quite cold to the touch (transformation of Yang into Yin, of Heat into Cold). Illness in Yin-Yang theory is a disturbance of homeostasis. It is described in terms of observable events and processes of and in the person. Notice that the struggle to regain homeostasis depends on two factors: the strength of the Excess and the strength of the system it disturbs. Not all trees fall in a hurricane, and not all people break bones when they fall or become infected with pneumonia after exposure.

So what is Cold? To begin with, Cold is a subjective feeling of decreased temperature or a state of feeling cold to the touch. Just as Cold can freeze the environment, it can cause contraction and stiffness in the body, which may be painful. Watery clear secretions, an aversion to cold temperatures, and a desire for warmth are also characteristic of Cold disharmonies. Notice that Cold does

cause disease. The strength of TCM is phenomenology, not etiology; it describes patterns of change in the body in terms of human experience. Someone with a high fever who has chills is suffering from Cold, not Heat. Cold is not *the cause* of the disease; it *is* the disease (see Kaptchuk 1983, pp. 115–137). In Western medicine, decisions about treatment are hindered in the absence of a known cause. In TCM, what you see is what you treat. The pattern in a particular person is the disease process.

Five Phase Theory

Unfortunately, certain English translations of acupuncture texts render "Wu Xing" as "Five Elements" rather than Five Phases. (The following discussion is based on Kaptchuk 1983, pp. 343–357.) This leads to the belief that early TCM resembled the Greek theory that everything in the world could be broken down into four basic constituent parts—Air, Earth, Fire, and Water—and later European medical theories based on the "humors." Nothing could be further from the truth. *Wu* is Chinese for the number five, and *Xing* means walk or move. Thus, the Five Phases are processes or properties, not constituents. They are meant to explain the dynamics of relationships.

The Phases are denoted Wood, Fire, Earth, Metal, and Water. Each Phase is associated with a wide variety of phenomena, including season, color, emotion, direction, sound, Organ, tissue, orifice, taste, and smell (Table 2–1). Rather than being inductions based on observation, the Phases arrange sets of observable phenomena around images suggested by a metaphysical understanding of the process of growth and decay. For example, the Wood phase is associated with spring and things that are in the active process of growing and developing. Fire represents summer and a state of maximal activity about to decline or enter dormancy. Metal represents autumn and processes of decline. Water represents winter and the maximal state of rest, whereas Earth represents the transition between seasons (and often designates Indian summer) and balance or neutrality.

The Phases can be related to one another in many ways, but the two patterns with the most effect on medical practice are the Producing and Controlling (or Conquest) cycles (Figure 2–2). In the

Table 2–1. Correspondences associated with the five phases

	Wood	Fire	Earth	Metal	Water
Direction	East	South	Center	West	North
Season	Spring	Summer	Long Summer	Autumn	Winter
Climatic condition	Wind	Summer heat	Dampness	Dryness	Cold
Process	Birth	Growth	Transformation	Harvest	Storage
Color	Green	Red	Yellow	White	Black
Taste	Sour	Bitter	Sweet	Pungent	Salty
Smell	Goatish	Burning	Fragrant	Rank	Rotten
Yin organ	Liver	Heart	Spleen	Lungs	Kidneys
Yang organ	Gall bladder	Small intestine	Stomach	Large intestine	Bladder
Opening	Eyes	Tongue	Mouth	Nose	Ears
Tissue	Sinews	Blood vessels	Flesh	Skin/Hair	Bones
Emotion	Anger	Happiness	Pensiveness	Sadness	Fear
Human sound	Shout	Laughter	Song	Weeping	Groan

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Producing cycle, Wood produces Fire that produces Earth that produces Metal that produces Water that produces Wood. This cycle is clinically useful in explaining Deficiency patterns and choosing treatments for them. The Producer is referred to as the Mother, and the Produced is referred to as the Child. The Child of a Deficient Mother may itself become Deficient from lack of nourishment. Or if a Child is Deficient it may drain the Mother, making it Deficient as well. Thus, if the Liver (Wood) is deficient, it can be treated by strengthening the Kidneys (Water). If the Heart (Fire) is in Excess, it can be treated by draining the Spleen (Earth). Disharmonies of the control cycle are similarly useful clinically. One Organ may overcontrol another, leading to Deficiency in one or both of them, or the Organ that should be controlled may become the controller, leading to an excess or deficiency in that Organ.

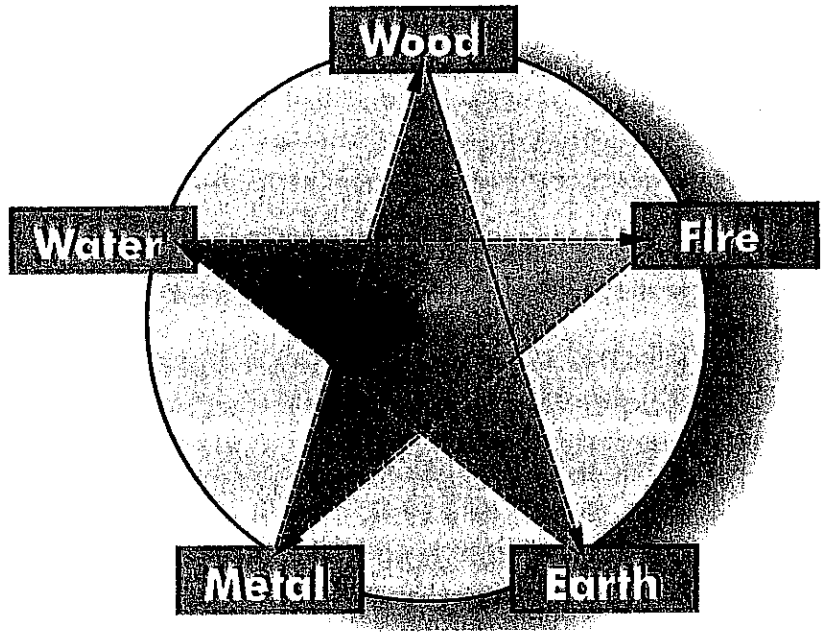

Figure 2–2. Production and control (conquest) cycles.
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Pathophysiology

Pathophysiology in TCM is based on an understanding of the Vital Substances, the Organs, and the Channels. I discuss three of the five Vital Substances: Qi, Jing, and Shen, which are called the Three Treasures. Note that what we translate as "substances" are not just different types of stuff; they are conceptualized and understood in terms of their *functions* in the body (see Kaptchuk 1983, pp. 34–49).

Vital Substances

The Three Treasures

Despite popular beliefs, Qi is not "energy." Nor is it matter. Some of the functions of Qi are more material, some are more energetic. In TCM, this poses no problems, because matter and energy, like all dualities, are on a continuum. *Qi* is the source of all motion and action in the body; it protects the body, is the source of transformation in the body, is responsible for holding all substances and Organs in their proper place, and warms the body. *Jing* is the source of life and of instinctual organic processes. Prenatal Jing, or congenital essence, is roughly equivalent to genetic endowment. Postnatal Jing is derived from food. Together they provide the substrate that enables individuals to grow, develop, and reproduce.

Shen has been translated in two main ways, neither of which is entirely satisfactory. If translated as Spirit, the impression is given that it is nonmaterial and persists after death. If translated as Mind, it becomes too closely associated with the brain and thinking. Neither translation captures its materiality, which is crucial to the TCM understanding of mental health. Shen is closest to that awkward rubric Body–Mind–Spirit. In what follows, I have chosen not to translate it. The simplest expression of the materiality of the Shen is the belief that both parents contribute to the Shen before birth, but that it also is continually, literally nourished after birth. Diet, physical activity, emotions, sexual activity, and drugs all affect the Shen. In one meaning of the word (Maciocia 1994, pp. 197–199), Shen encompasses all mental activities and characteristics, [illegible] tion, wisdom, formation of ideas, sleep, and memory.

None of these three substances can be deeply understood without understanding the others. Qi helps transform food into postnatal Jing, but without prenatal Jing there could be no life or Qi. Many references say that the Jing of the mother and father come together to form the Shen of the child. "If [Jing] is strong, Qi flourishes; if Qi flourishes[,] the [Shen] is whole" (*Zhang Jie Bin* 1624/1982, cited in Maciocia 1994, p. 198).

The main point about the Vital Substances is their dynamism. They are constantly created, transformed, and circulated throughout the body. Anything that drains or fails to supply the necessities for their creation, disturbs their transformation, or impedes their circulation disrupts the homeostasis of the individual. One can regard Jing as the densest form of Qi and Shen as the most refined form of Qi. Thus, anything that affects the Qi can disturb the Shen or deplete the body's store of Jing, which in turn will disturb the Shen.

The Organs

The Vital Substances are created, transformed, and circulated in and through a system of Organs. There are 12 major Organs, grouped into six pairs of one Yin and one Yang Organ. The five major Yin Organs are the Heart, Lungs, Spleen, Liver, and Kidneys. They are of more importance to medical theory because they produce, transform, regulate, and store the Vital Substances. In particular, the Heart stores the Shen, the Lungs and Spleen produce the Qi, the Liver guides the harmonious flow of Qi through the body, and the Kidneys store the Jing.

Unlike Western anatomy, which identifies organs as gross physical structures, in TCM, Organs are (almost) all associated with a bodily tissue but never reducible to it; Organs are defined by what they "do." Perhaps in part because they did not begin reasoning from the physical structure, Chinese medical practitioners were free to correlate their observations into functional units. Now it is "common sense" to observe that the kidneys affect respiration, but before the complex system for regulating bicarbonate was understood this would have been regarded as madness. In TCM, for

thousands of years it has been a truism that the Kidneys "complete the breath."

The Channels

The Organs are interconnected by a system of Channels that traverse the body and allow communication and transportation among the Organs. (Because meridians are two-dimensional, that term does not capture the transporting function that is essential to the Channels.) Acupuncture points are locations on the Channels where communication and transportation can be regulated (Figure 2–3). In a commonly employed metaphor, the Channels are compared to the electrical wiring in a building; the acupuncture points to light switches, dimmers, and fuses; and the Organs to appliances. In this room, electricity (the Vital Substances) "becomes" images on television. In the next room, it cooks dinner and washes the dishes. Everywhere it provides light. TCM considers the "depth" of the disturbance to be of prime importance to its treatment. In general, the surface of the body and the Channels are more exterior. A Pernicious Influence may enter the body and be successfully repelled at the level of the Channels, or it may travel through the Channels into the Organs. From one Organ it may travel through Channels to other Organs. For example, Liver Wind may travel through the Liver Channel to the head, manifesting as dizziness, or may enter other Channels, manifesting as numbness or tremors in the limbs. In addition, Organs are considered in terms of their relative depth. The Lungs are less interior and the Kidneys are relatively deep, so the Lungs are often the first Organs to be attacked by external influences.

Categories of Disease Process

Disease processes can all be grouped into three categories: those that deplete or interrupt the production of Vital Substances, which commonly results in Deficiency; those that interfere with transformation, which commonly results in accumulation of Excess; and those that impede circulation, which commonly results in Stagnation. Usually these processes interact, and the development of one often stimulates the development of the others. The factors that precipitate these disease processes may attack from outside the body, arise from inside the body, or belong to a category considered neither external nor internal. Excesses mentioned above may either attack from outside or arise internally. The neither/nor factors include diet, physical activity, sexual activity, burns, bites, parasites, and trauma.

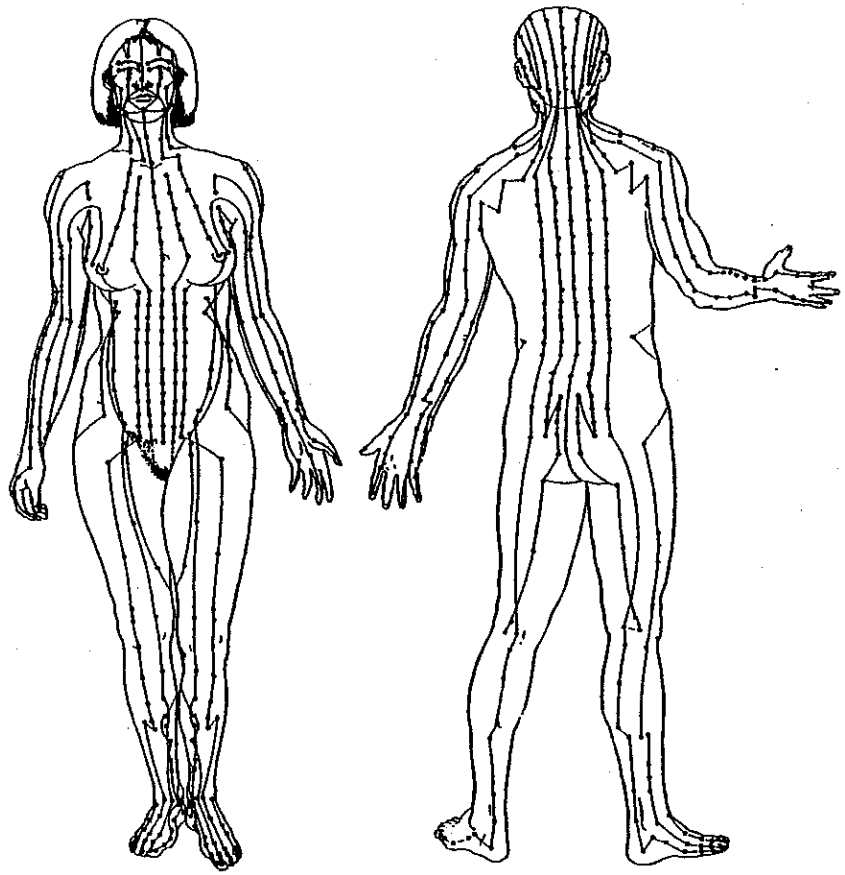

Figure 2–3. Acupuncture points.
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Role of Emotions

The internal factors that may precipitate disease are the emotions. The *Nei Jing*, one of the earliest texts of TCM, lists seven emotions that commonly precipitate disease if they become either excessive or deficient: Joy, Anger, Sadness, Grief, Worry and Brooding, Fear, and Fright.[1] For example, excess Joy manifests as Craving. The meaning of Craving in TCM is far broader than our association of it with addiction. Showing the influence of Taoist and Buddhist thought, Craving is considered the attempt to hold on to what is impermanent, and everything in life is considered impermanent. In this system, jealousy is a form of craving, or excess Joy.

The inseparability of mind and body is profoundly captured in the TCM understanding of emotion. Each emotion is considered to be one of the functional expressions of an Organ (see Maciocia 1994, pp. 200–217): Joy is a functional expression of the Heart, anger is an expression of the Liver, Sadness and Grief are expressions of the Lungs, Worry and Brooding are expressions of the Spleen, and Fear and Fright are expressions of the Kidneys. As functions of the Organs, emotions are healthy when they are in balance with the system as a whole and harmful when they are not. Very little attention is given to healthy emotions, but their effects can be extrapolated from the other functions of the Organs with which they are associated. Anger, for example, has the quality of a powerful, intense focus, which can direct a person toward a desired goal.

When an emotion is excessive, either because it is too intense or because it is prolonged beyond the appropriate time to focus on its object, it acts like every other precipitating factor of disease; it disrupts the Vital Substances and Organs. In particular, emotions affect the Qi and Blood. They may lead to deficiency or stagnation of Qi or to deficiency, Heat, or stagnation of Blood. When the Qi is deficient, the Spleen, Lungs, and/or Kidneys may not transform fluids, which may instead accumulate as Phlegm. When

[1] The exact number of emotions that may precipitate disease is subject to controversy: in some schools of thought, Sadness and Grief are considered one emotion, as are Fear and Fright. Categorization aside, there is broad agreement about their role in disease.

the Qi is stagnant, one possible effect is stagnation of Blood. Whether Blood is deficient, contains Heat, or is stagnant, one possible effect is Phlegm-Fire (Maciocia 1994, p. 226). These effects have been noted since the earliest texts in TCM. *The Inner Canon*, for example, says that "[i]n a patient full of grief and sadness, the Qi becomes depressed and does not move" (Guo Xiechun 1989, cited in H. Fruehauf, "Treatment of Mental Disorders," unpublished manuscript, 1994, p. 3). This passage from *The Inner Canon* also illustrates TCM's understanding of depression as a lessening and restraining, whether of physical or emotional functions. A fifteenth-century physician went so far as to say that "[i]f Qi and Blood exist in abundance and harmony, a person will not get sick. Once there is depression, all kinds of diseases will start to evolve. Therefore all of the body's diseases are caused by depression" (quoted in Zhang Bosou 1991; cited in H. Fruehauf, "Treatment of Mental Disorders," unpublished manuscript, 1994, p. 3).

The effects of the emotions on the Organs also follow patterns. As we have seen, each emotion has a special relationship to a particular Organ, because the nature of the emotion matches the functions of the Organ. Anger, for example, is said to injure the Liver. Remember that one of the main functions of the Liver is to ensure that Qi flows smoothly in the proper direction. The sudden, flaring nature of acute anger, which rushes toward its object, mirrors the function of directing the flow of Qi. One effect of unhealthy anger is that Qi ascends when it should descend. This may result in flushing, headache, or labile mood. The knotted, dense nature of chronic anger might result in stagnation of Qi, which may be manifested as depressed mood or flank and chest pain. In TCM, treating the mood and the pain independently is senseless at best.

The effects of the emotions on the Shen are equally important to their effects on Qi. Because Shen is a refined form of Qi, it exists everywhere that Qi exists. Each Yin Organ is said to have a Shen, and the term refers to a particular dimension of the Heart, as well as the collectivity of these dimensions of the five Yin Organs as a group (Maciocia 1994, pp. 200–217). The "Five Shen" and their organs are as follows: Shen—Heart; Ethereal Soul (*Hun*)—Liver; Corporeal Soul (*Po*)—Lungs; Intellect (*Yi*)—Spleen; and Will (*Zhi*)—Kidneys. Any and all emotional stress, regardless of origin,

is capable of disrupting the flow of Qi and thereby damaging the Shen in the collective sense.

The Shen that resides in the Heart is responsible for all mental activity as well as the five senses. All perceptions and emotions are said to be recognized and felt in the Heart. In turn, anything that damages the Heart will also damage its Shen. Thus, the connection between depression and heart disease and the need to treat both simultaneously have been part of TCM for centuries. (Heart) Shen is closely related to consciousness. Loss of consciousness, lack of clarity in thought, diminished insight, and poor judgment all reflect a disturbance of the Shen.

The Ethereal Soul (*Hun*) is said to enter the body shortly after birth and survive the body after death, though not in a personalized form. It can be understood in Buddhist terms as the part of individual consciousness (Small Mind) that exemplifies universal consciousness (Big Mind). The Ethereal Soul makes its home in the Liver. If the Liver Yin and/or Blood are depleted, the Ethereal Soul loses it home and wanders. This may be expressed as insomnia, timidity, fear, or a lack or direction. Like the Shen, the Ethereal Soul participates in all mental activities. In one text it is described as the "coming and going" of the (Heart) Shen, meaning that by means of the Ethereal Soul the (Heart) Shen both manifests itself in the outside world and connects with the inner world of intuition, dreams, and the unconscious. Also, the (Heart) Shen is said to "gather" the Ethereal Soul. If the two are balanced, the person has calm wisdom. A person who has many dreams but never accomplishes anything may lack a Shen strong enough to restrain the Ethereal Soul. Within TCM, this problem cannot be described as functional or organic, as emotional or physical. The Ethereal Soul and the Shen, in this case our dreams and their expression, involve body, mind, and spirit. Disturbances of the Ethereal Soul manifest as problems of the Liver and are treated by treating that Organ and its connections. As it says in the *Spiritual Axis*, "If the liver is deficient there will be fear; if it is in excess there will be anger" (Ling Shu Jing c. 100 BC/1981, cited in Maciocia 1994, p. 203).

The Corporeal Soul (*Po*) arises soon after a person is conceived and dies with the body. Just as the Ethereal Soul is the coming and going of the (Heart) Shen and provides its movement, the Corporeal Soul, the "coming and entering" of Jing, it provides the body the capacity for movement and allows the Jing to interact with the other Vital Substances. Corporeal Soul is also what allows us to register and feel sensations and to express them physically. Thus, it is related to the sense organs, including the skin, and plays a role in crying and weeping. It is said to "root" the Ethereal Soul, which is related to maintaining the flow of Vital Substances in the proper direction. Because the Corporeal Soul resides in the Lungs, it is closely associated with breathing. Thus, in meditation, breathing is used to quiet the Corporeal Soul, which roots the Ethereal Soul and thereby calms mental activity, strengthens the Shen, and increases insight. Emotional tensions that express themselves as pain, skin rashes, and/or itching are described as disturbances of the Corporeal Soul. *Yi* has been translated both as intellect and as intention. Among other things it is responsible for the application of mental activity to specific tasks (e.g., memorizing information for use in study or work). The lack of concentration common in depression may be related to a disturbance of Yi, or the Spleen, where it resides. Unchecked, the Yi can lead to melancholic brooding or obsessive compulsion. *Zhi*, like the Shen, has multiple meanings (Bensky 1992). The one most relevant for us is purpose, will, or ambition. It is a person's sense of what to focus on, where to put one's efforts, and what one ultimately wants to be. A lack of Will may be an important part of depression. The Will is associated with the Kidney, which stores the Jing. Just as Jing provides a kind of physical substrate for the Shen, Will is essential for achieving the desires of the (Heart) Shen.

Traditional Chinese Medicine in Practice

If TCM were only a sophisticated and elegant theory of the human terrain of health and disease, it would not have survived in contemporary medicine. And if Qi and Shen were merely metaphors, no techniques for assessing them would have interobserver reliability. Such is not the case. In addition to taking a detailed history, the two major ways that a person's health is assessed by a TCM practitioner are examination of the tongue and palpation of the pulse.

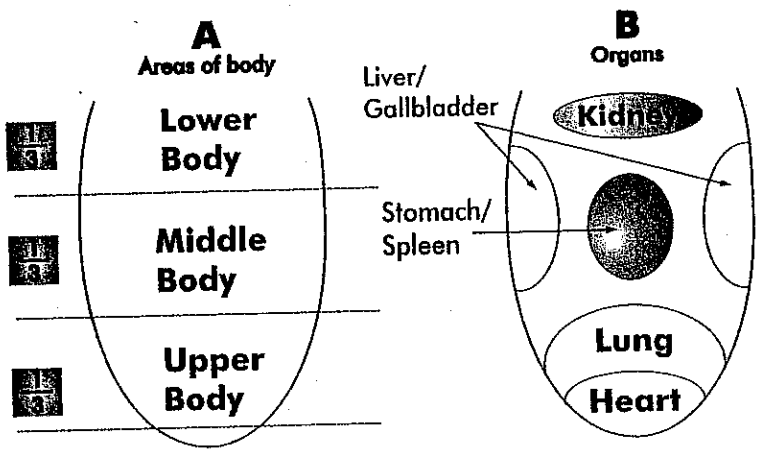

Figure 2–4. Relationship between areas of tongue and areas of body (A) and the Organs (B).

Tongue diagnosis (see, e.g., Maciocia 1987) has several advantages as a diagnostic technique. The condition of the tongue reflects the long-term condition of the patient and is relatively unaffected by immediate or short-term changes, such as anxiety over being examined by a doctor or running to be on time for the appointment. Changes in the tongue provide a convenient and reliable way to track whether the patient's condition is responding to treatment. There is general agreement about the correspondence between areas of the tongue and Organs (Figure 2–4) and good interobserver reliability (e.g., a pale tongue is perceived as pale, a red tongue as red). Detailed discussion here is not necessary; the point is that a TCM practitioner carefully observes the tongue and gauges the efficacy of treatment over time by whether the body, coating, and moisture of the tongue become more normal (Table 2–2).

Pulse diagnosis is an extraordinarily complex topic. What is important for our purposes is that the TCM practitioner palpates the pulse at three positions on each wrist. In some systems, each position is palpated at three depths: superficial, middle, and deep. Each position corresponds to a different area of the body and to different Organs. The pulse is palpated not just for rate and rhythm but also for 28 separate qualities. Depending on the quality of the pulse and the location in which that quality is palpated, a diagnosis is hypothesized. Although complex and difficult to learn, pulse diagnosis is the most impressive diagnostic technique developed in TCM. Experienced practitioners are able to "read" the pulse and give a detailed history of the patient's condition, list the patient's symptoms, and pinpoint the location of the disharmony even without knowing anything about the patient. To the uninformed it looks like wizardry. The limitation of both pulse and tongue diagnosis in modern medicine is the ability of some medications to alter the quality of the pulse and the condition of the tongue. Some of these effects are predictable and can be factored out, whereas others are just being discovered and their interference with diagnostic accuracy is unknown.

Table 2–2. Tongue diagnosis

Tongue	Aspect	Clinical significance
Vitality of color		Overall prognosis
Body	Color	Qi, Blood, Yin Organs
	Shape	Qi, Blood, Yin Organs
Coating	Color	Hot/Cold
	Thickness	Strength of Pernicious Influence/ strength of Qi
	Distribution	Progression of External Pernicious Influence/location of Internal Pernicious Influence
	Root	Strength of Qi, especially Kidney and Stomach
Moisture		Depletion/accumulation of bodily fluids

Let's take the example of a person who complains of depressed mood to illustrate how the process of diagnosis proceeds (Figure 2–5). The term *yuzheng* (depression syndrome) encompasses numerous symptoms that are usually precipitated by emotions (see central box in Figure 2–5). It may also be precipitated by poor diet (which weakens the Spleen); overwork (which includes what we call exercise and may deplete Vital Substances, including Kidney Jing); medications, illicit drugs, or alcohol (which may injure the Liver or, in severe cases, the Kidney); or blood loss or any prolonged illness (which may lead to deficiency of any Vital Substance

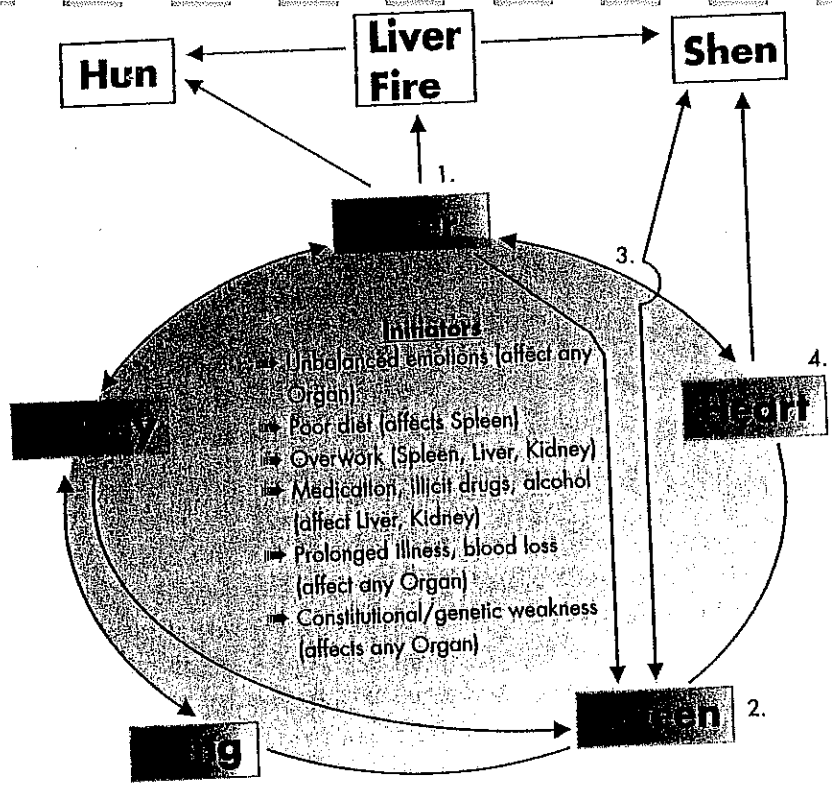

Figure 2–5. Pathophysiology of depression in traditional Chinese medicine. The major relationships among Organs in the pathogenesis of depression are depicted. Examples are 1) Stagnant Liver Qi generates Fire and affects the Spleen; 2) Deficient Spleen Qi results in accumulation of Phlegm, which affects the Heart; 3) Deficiency in Liver and Heart disturb the Hun and Shen; and 4) Deficiency in Heart disturbs the Shen.

or Organ). All emotions, as we know, may injure the Heart. But in general, acute emotions affect the Qi, particularly of the Liver. Their most common acute effect is Liver Qi stagnation. Over time, emotions may result in severe stagnation, which may generate Fire; deficiency, which may drain Vital Substances from a variety of Organs; or failure to transform, with subsequent accumulation of excess Phlegm or Damp.

Whereas in Western medicine the analytic process is differential diagnosis, in which either/or choices are repeatedly made until

tioner discerns patterns of symptoms, pulse, and tongue to choose a point of intervention. For example, someone complaining of depressed mood, restlessness, poor appetite, blurry vision, and nausea who has a "wiry" pulse exhibits a pattern of Stagnant Liver Qi, with Liver Affecting the Spleen (numeral 1 in Figure 2–5). In Five Phases theory, this is an example of Wood (the Liver) controlling Earth (the Spleen). Acupoints would be selected to restore the flow of Qi in the Liver and to build the Spleen. If, however, the patient complained of a feeling of something's being stuck in the throat, some swelling in the limbs, bloating after eating, and stuffiness in the chest (numeral 2 in Figure 2–5), and he or she had a "slippery" pulse and a sticky tongue coating, points would be added to resolve Phlegm, and perhaps to build the Spleen Qi. A depressed patient complaining of dizziness, excessive dreaming at night, timidity, insomnia, and forgetfulness (numeral 3 in Figure 2–5) with a pale tongue and a thin pulse is exhibiting a pattern of Deficient Liver and Heart Blood, disturbed Hun, and a disturbed Shen. In Five Phases theory, Wood is not producing Fire. Points would be chosen to calm the Shen, root the Hun, and build the Liver and Heart Blood. To give just one more example, a patient with uncontrollable crying, inability to concentrate, restless sleep, and a feeling of being out of control (numeral 4 in Figure 2–5) who has a midline crack in the body of the tongue and a red tip accompanied by a hollow and rapid pulse has a disharmony primarily involving the Heart. Points to quiet and build the Shen and build Yin would be chosen. At subsequent visits it is likely that at least some points would change as the pattern of symptoms, pulse, and tongue responded to the treatment. Although some standardization exists and some points are particularly useful for specific symptoms, the individuation of treatments based on close observation remains the heart of TCM.

Acupuncture and Biomedical Research

Just as every person speaks with an accent, usually inaudible to the speaker, every medical system and scientific practice is shaped by the culture in which it develops and is used. When an

economically and politically dominant country or group of countries develops a particular practice, it generally becomes exported/imposed on the rest of the world. It would be odd if contemporary psychiatry followed a different course. Medicine has not entered the postmodernist age; the culture of medicine presupposes that there is one reality, discoverable by an unambiguous experimental method. The "hard" science of medicine is biologically based, and psychiatry simply awaits the discovery of the biochemical markers that will allow it to isolate, analyze, and develop cures for all mental illnesses.

This conception of psychiatry is akin to the search for pathogens during the development of infectious disease as a specialty. Find the bug, develop the drug, and you've done your job and done humanity a service. This attitude prompted much valuable research, but it is now well recognized that public health measures focusing on environmental strategies for control of infectious agents are the main reason for the dramatic decline in infectious disease that accompanied the development of antibiotics. Antibiotics are unquestionably useful, life-saving, and important, but preventive measures affect more people, have far more social benefits, and produce no side effects. At least some psychiatrists believe, similarly, that although the discovery of biochemical markers of mental disorders is an aid, we cannot assume that these markers will provide all, or even the most important, answers to the question of how best to treat mental disorders. Some support for this view is found in the experiences of other cultures.

Psychiatry and Culture

In psychiatry the challenge to biological reductionism is to explain the interactions among history, culture, and mental disorders. At least three kinds of questions force attention to these issues. First, if mental disease is primarily biological, why are some mental disorders culture-specific? The appendix to DSM-IV (American Psychiatric Association 1994) lists *amok* and *latah* as culture-specific but does not recognize anorexia nervosa, multiple personality disorder, or chronic fatigue syndrome as culture-bound (Kleinman and Cohen 1997). For that matter, in traditional

ultu[illegible]h ex[illegible]f ar[illegible]notion is considered harmful, but mod-
ern psychiatry focuses on just three: excess sadness is termed *depression*, excess fear is termed *anxiety* (Wig 1990), and excess happiness is termed *mania*. That excess anger is not in itself considered pathologic seems more a reflection of the cultures in which modern psychiatry developed than a reflection of what creates suffering in people's lives. Second, if mental disease is primarily biological, why are there different prevalence rates in different parts of the world, and among different socioeconomic classes? Even schizophrenia, which is the strongest candidate for a biologically based mental disease, varies in prevalence in different parts of the world (Kleinman and Cohen 1997; Wen 1998), which at least suggests the influence of culture. Voluminous evidence exists indicating that rates of depression, anxiety, and other mental problems vary by class and degree of stigmatization. Third, historical changes result in varying rates of particular mental disorders. Should we conclude then that industrialization produces changes in biology?

In mainstream psychiatry, recognition of cultural difference is expressed in the distinction between disease and illness, with disease referring to biological processes and illness referring to the personal and cultural expression or construction of disease (e.g., Eisenbruch 1983). This is also referred to as the "pathogenicity/pathoplasticity dichotomy." In addition to the fact that varying prevalence rates challenge the assumption on which the dichotomy rests, use of a dichotomy is itself culture-bound. Preoccupation with dichotomies is a prominent feature of the European tradition in psychiatry (Wig 1990). Debates over the relative importance of nature/nurture, thinking/feeling, body/mind, conscious/unconscious, and organic/functional stem from seeing these as contrasting opposites rather than placing them in a context of juxtaposition and identification of polarities (Mora 1980) as in Yin-Yang theory.

The clearest expression of the differences between the two approaches surrounds what DSM-IV calls somatoform disorders. The implication is that the "real" cause of the patient's complaints is psychologic and that the physical symptoms are "masking" psychic conflicts and disturbances that the patient is unable to face

or that are "maladaptive" ways of coping with conflict. This egory cannot exist in TCM because there is no distinction between mind and body and there is no cause hiding behind the expression of disease. Rather than "excluding" an "organic" cause, TCM practitioners treat what they find, along whatever point in the biological/mental continuum. Open any standard acupuncture text and examine the lists of indications for acupoints and you will find "somatic" and "psychic" indications listed together. For example, common indications for the fifth point on the Bladder Channel are headache, blurring of vision, and epilepsy; for the seventh point on the Pericardium Channel they include cardiac pain, vomiting, palpitations, panic, mental disorders, and pain in the chest and hypochondriac region (Beijing, Shanghai, and Nanjing College of Traditional Chinese Medicine 1980). Whether a pattern is "maladaptive" or normative depends in large part on how it is perceived and handled by the community. The advantage of TCM is that it neither privileges nor denigrates either the physical or the psychologic. It reframes the patient's symptoms in a pattern encompassing both mental and physical factors. In this way it avoids the stigmatization of mental illness while highlighting the patterns existing in and partly created by the person. The metaphoric nature of the language of TCM works to its advantage here. Tell a depressed person that he or she is "stuck" or needs to "nourish" a deficiency, and if your diagnosis is right, the words resonate with the person's experience and offer an opening for a dialogue about behavioral changes.

Research on Acupuncture

Contemporary scientific investigations into the efficacy of acupuncture have almost all been conducted within a biological reductionist model. Perhaps because widespread attention to acupuncture in the biomedical community followed President Nixon's trip to China, during which James Reston had an emergency appendectomy under acupuncture analgesia, early research focused on acupuncture for pain control, and subsequent research has focused primarily on acupuncture's effect on the nervous system. Explaining all the effects of acupuncture in terms of

tura[illegible]cceptable concepts such as [illegible] obviate the need to refer to concepts like Qi, which many regard as disreputably metaphysical. For example, "de Qi," a sensation of heaviness, numbness, or aching at the site of needle insertion and sometimes radiating from there has been hypothesized to result from the activation of type II and III muscle sensory nerves (Pomeranz 1996). Andersson and Lundeberg (1995) asserted that low-frequency electrical stimulation, such as that sometimes used on acupuncture needles, activates mechanoreceptors in multiple tissue types. They speculated that, through this mechanism, acupuncture has physiologic effects on afferent input in somatic nerve fibers similar to those of physical exercise. This hypothesis awaits further research. If true, acupuncture might, for example, have an effect on mild depression similar to that of exercise.

Although exact mechanisms are still under investigation, it is well established that acupuncture acts on the nervous system locally, regionally, and centrally. Locally, acupuncture stimulates vasoactive intestinal peptide and a host of inflammatory mediators. It is also known to affect the spinal cord, midbrain, and hypothalamus/pituitary in a way that stimulates the release of enkephalins, dynorphins, β-endorphins, calcitonin gene-related peptide, methionine, adrenocorticotropic hormone (ACTH), serotonin, norepinephrine, and dopamine (Han 1986; Pomeranz 1996; Stux and Pomeranz 1987, 1991; Tsou 1987, 1989), and to regulate the balance between the sympathetic and parasympathetic nervous systems (Andersson and Lundeberg 1995; Karavis 1997). Many of these substances are known to be important in the pathophysiology of mental diseases, and their regulation suggests that acupuncture could play a role in treating mental illness. In light of this evidence, even those averse to notions such as Qi and Shen could reasonably ask whether acupuncture would benefit depression, anxiety, or schizophrenia.

A review of the literature disappoints anyone looking for conclusive evidence (Table 2–3). Most studies on the use of acupuncture for mental disorders are case series. Blinding is rare. Randomized trials, when they exist, are of very low quality: enrollment procedures, eligibility criteria, definitions of treatment, length of treatment, and number of acupuncture sessions are often unspec-

ified. When specified, they vary tremendously from one study to the next, which makes it difficult to sum the effects of multiple small studies. In short, there is insufficient evidence to make recommendations about acupuncture for the treatment of mental disorders on the basis of existing trials. Except for the issue of addiction, for which it found insufficient evidence, the National Institutes of Health (NIH) Consensus Statement on Acupuncture (1997) does not even address mental disorders. Two conclusions can be drawn from these facts. First, what acupuncturists do in practice is not based on clinical trials. Second, the methodologic infrastructure for assessing acupuncture does not yet exist (Margolin et al. 1998).

Although the evidence that acupuncture is effective for treating mental disorders is inconclusive, there are several reasons to continue to study it. Eight of the trials cited above directly compared acupuncture with standard treatment and found no statistical difference between the two. The NIH Consensus Statement (1997) found evidence suggesting that acupuncture was effective in the treatment of conditions such as postoperative pain and postchemotherapy nausea and that acupuncture is effective in numerous other conditions, including asthma, dysmenorrhea, and osteoarthritis. The variety of mechanisms that produce these conditions and the contribution of anxiety to some of them suggest that we are far from understanding the true scope of acupuncture's effects. In addition, people in every class and from a multitude of cultures use acupuncture as their treatment of choice (Eisenberg et al. 1993). Although continuance of a procedure over time is not in itself evidence for its effectiveness, its continuity over time and across cultures, coupled with widespread contemporary use, demands the attention of serious physicians.

Two other conclusions can be drawn from any general survey of acupuncture research for any problem (see, e.g., Helms 1995, pp. 42–56). First, acupuncture is safe. After literally millions of treatments, only five fatalities were reported in the literature from 1965 through 1996 (Ernst and White 1997). The greatest risks are infection, which results from improper use or reuse of needles without sterilization, and pneumothorax. The use of disposable needles, which is nearly universal in the United States and Japan,

Table 2–3. Trials of acupuncture for mental disorders

Study	Clinical problem	*N*	Type of trial	Treatment	Quality	Outcome
Kane and DiScipio 1979	Schizophrenia	3	Case report	BA vs. sham acupuncture	Low	2 of 3 responded positively to BA but not to sham acupuncture
Shi and Tan 1986	Schizophrenia	500	Case series	EAR and BA; some patients given chlorpromazine	Low	55% cured; 16.8% greatly improved
Zheng and Xiu 1988	Psychotic hallucinations	216	Case series	EAR vs. EAR, BA vs. EAR, and 200 mg chlorpromazine	Low	No statistically significant differences among groups
Zhang 1988	Hallucinations	296	Case series	BA	Low	70.6% cured; 18.9% greatly improved
Wu 1995	Schizophrenia	53	Case series	BA, herbs	Low	100% cured
Jia et al. 1987	Schizophrenia	37	Case series	Laser acupuncture vs. 250–500 mg chlorpromazine	Low	No statistically significant differences between groups; no side effects in acupuncture group

Table 2–3. Trials of acupuncture for mental disorders *(continued)*

Study	Clinical problem	*N*	Type of trial	Treatment	Quality	Outcome
Zhang 1987	Schizophrenia	182	Randomized, unblinded trial	EA and herbs vs. EA vs. herbs vs. chlorpromazine	Low	Significantly less effect with herbs alone; no statistically significant differences among other groups
Zhou et al. 1997	Schizophrenia	40	Randomized, single-blind trial	Neuroleptics vs. EA and 40% of previous daily dose of neuroleptic	Low	No statistically significant differences between groups; fewer side effects in EA group
Zhang et al. 1987	Hysterical paralysis	1,316	Case series	BA	Low	97.8% cured
Luo et al. 1985	Depression	47	Randomized, unblinded trial	EA vs. amitriptyline	Low	No statistically significant differences among groups; fewer side effects in EA group
Luo et al. 1998	Depression	Phase I: 29	Randomized clinical trial	EA vs. amitriptyline vs. EA and amitriptyline	Low	No significant differences among groups
		Phase II: 241		EA vs. amitriptyline	Low	Significantly fewer side effects in EA group

Table 2–3. Trials of acupuncture for mental disorders *(continued)*

Study	Clinical problem	*N*	Type of trial	Treatment	Quality	Outcome
Allen et al. 1998	Depression	38	Randomized clinical trial crossover	BA for depression vs. BA for other symptoms vs. wait-list	Adequate	BA for depression showed statistically significant differences from BA for other symptoms; no statistically significant differences from wait-list, but in crossover, wait-list showed significant differences after BA compared with before
Liu 1998	Anxiety	240	Randomized clinical trial	EAR and BA vs. behavior therapy vs. combined	Low	No statistically significant differences between EAR and BA vs. behavior therapy; combined group two times better than other groups
Lewis 1987	Preoperation anxiety	90	Randomized clinical trial	Diazepam vs. no-needle EAR vs. relaxation tape	Adequate	No statistically significant differences in effectiveness among groups

Note. BA = body acupuncture; EA = electroacupuncture; EAR = ear acupuncture.

minimizes or eliminates the risk of infection. Sixty-five cases of pneumothorax have been reported worldwide (Ernst and White 1997). Care in needling particular points on the thorax minimizes, but does not eliminate, this risk. Overall, then, the risk is extremely low. Second, most people experience a deep sense of relaxation during acupuncture treatments. This experience is so common that trials to assess the efficacy of acupuncture for anxiety (Lewis 1987) and for prevention of opiate and other drug withdrawal (Margolin et al. 1998) often choose relaxation training as a control for acupuncture treatment. Take a theory that nonjudgmentally stresses the connections among different aspects of the person and between actions and their consequences. Couple it with a practice that is nonverbal (and, therefore, independent of education, literacy, articulateness, or insight), is relaxing, and provides a degree of personal attention and interaction; make it comparatively free of side effects and complications; and if effective, such a modality has the potential to provide relief for many patients currently considered difficult to treat by standard biomedical practice.

Methodologic Problems

Randomized controlled trials constitute one appropriate design to test the efficacy of drugs. But acupuncture is not a drug. It is a procedure (diagnosis, selection of treatment, and treatment) that relies on a device (the needle and its accessories) to deliver its effects. By now there is near-universal agreement that trials of acupuncture cannot be double-blind. Using people untrained in acupuncture to insert needles cannot guarantee a minimum standard of care (Hammerschlag 1998; Lewith and Machin 1983; Vincent and Richardson 1986). Single-blind studies are not impossible to design, as will be seen below, but problems other than blinding are more difficult to solve.

The barriers to specifying the model for testing acupuncture can be grouped into two main categories: 1) developing treatment protocols and 2) selecting appropriate controls and control conditions. The extent of the difficulties is apparent from the literature on ear acupuncture for addiction. Ear acupuncture itself is a nontraditional form first developed by the French physician Paul No-

gier in the 19[illegible] Ear [illegible] as [illegible] method of treating the craving for substances began in the 1970s. Dr. Wen, a neurosurgeon in Hong Kong, was researching acupuncture analgesia. When several of his opiate-addicted trial participants reported decreased withdrawal symptoms, he began to study acupuncture as a treatment for opiate addiction. No complex theoretical underpinnings trouble this technique, which is a purely empirically based invention. Symptoms determine point selection, and the treatment protocol is not controversial. Still, variations in selection of appropriate controls and methods to eliminate bias have rendered the literature on the use of acupuncture for addiction inconclusive. The best-designed trial, the Cocaine Alternative Treatments Study, is under way as of this writing (Margolin et al. 1998) and will be an important step in the development of acupuncture research. The barriers to adequate research on the use of acupuncture in the treatment of other mental disorders are even more formidable.

Treatment Protocols

For treatment of mental disorders, unlike that of addiction, the TCM diagnostic category potentially affects point selection. As was noted earlier, two people diagnosed with depression by DSM-IV criteria might well be given two different diagnoses by TCM practitioners. In addition, although the diagnosis does not change during the treatment process in Western psychiatry unless it is believed that an error was made, in TCM it is expected that the pattern of dysfunction will change in response to treatment and that the treatment will change accordingly. Some acupuncturists have nonetheless developed a "cookbook" approach in which the same set of points is needled in everyone with a particular symptom or with a particular Western disease diagnosis. This approach is more warranted the narrower the condition being addressed. For example, needling Pericardium 6 has been investigated in the treatment of nausea, whether it be from pregnancy, chemotherapy, seasickness, weakness of Stomach or Spleen Qi, invasion of the Spleen by the Liver, or retention of food. But the clinical manifestations of depression are far more complex and varied than nausea.

We have selected that acupuncture points are selected according to clinical manifestations. In clinical practice point selection is adjusted not just individual by individual but also by symptom complex (pattern) presentation at each visit. Furthermore, treatment of the whole person by expelling excesses, strengthening, or balancing is a vital element of the overall treatment plan and will differ from individual to individual. Using the same set of points for everyone with the same Western diagnosis of a mental disorder is as senseless as predetermining the issues that can be discussed with patients by psychotherapists in order to test different theories of anxiety, or prescribing penicillin to everyone with a fever in order to "test antibiotics." No adequate trial of acupuncture for mental disorders can avoid incorporating variation in TCM diagnosis and in subsequent point selection.

Assuming we have solved the problem of selecting points, we have a variety of methods available for stimulating those points. We could needle them, stimulate them with electricity with or without needling them, tape small pellets with or without magnets onto the points and instruct people to manually stimulate the pellets as symptoms arise, or burn small cones of the herb *Artemisia vulgaris* (moxa) either directly onto the point or onto a needle inserted into the point. All of these procedures are routinely employed in clinical practice. Without trials it is premature to assume that one method is superior to another. Some pain studies suggest that analgesic effect is enhanced by electricity, but these studies have compared electric stimulation only with needles without electricity. No trials have compared electroacupuncture with manual stimulation of needles or with needles with moxa. Developing treatment protocols is impossible without resolving these questions.

Once points are selected and the stimulation method is decided, the correct "dose" of acupuncture has to be determined. Dose includes intensity of stimulation, duration of needle retention, and number of total treatments. Having discovered that many acupuncture points overlap with trigger points (Melzack et al. 1977) and motor points (Liu et al. 1977), researchers seemed to conclude that the Western mechanism explained the effect of acupuncture points and that depth of insertion determined outcome. This mir-

[illegible] assumption of most Chinese [illegible]
"de Qi" is felt, the treatment will not be effective and [illegible] when treating pain, the stronger the sensations felt from the needles the more effective the treatment will be.[2] However, other acupuncturists in the Chinese and other traditions, notably in Japan, do not believe "de Qi" is necessary for an effective treatment and do not routinely elicit it, or they believe it is only necessary for certain conditions or individuals. Are these cultural differences? Does acupuncture work by many, currently unknown mechanisms? What depth is appropriate for what points in which clinical situations? Is intense stimulation more appropriate for some disorders than others? Does intensity of stimulation influence the number of total treatments necessary for a cure? Does this differ from disorder to disorder? From individual to individual? Without knowing the answers to these questions, how can we say that a particular treatment has failed?

Controls in Acupuncture Research

The two most difficult problems in eliminating bias from acupuncture research are how to control for participant bias and how to select an appropriate control treatment. Participant bias arises because of interactions between the patients and the practitioners or because of the beliefs of the patient. Margolin et al. (1998) have limited verbal exchanges between patient and practitioner by allowing practitioners to answer questions without elaboration but proscribing them from initiating exchanges or conversation and by having a third person monitor all interactions. This innovation provides additional rigor to their study. It does not, however, control for nonverbal interactions between patient and practitioner.

The Qi in the body is not considered separate from the Qi in the universe. Exchanges of Qi between people are considered not just possible but commonplace. Indeed, the whole discipline of Qi

[2] What many Chinese persons perceive as a good, strong, satisfying treatment, most Americans perceive as unacceptably painful. This cultural difference has led to a situation in which some standard treatments in China are rarely if ever done in the United States.

Gong is a highly developed system for training people to build their own and others' Qi and to transfer Qi from one person to another. What Westerners call "charisma" and "star power" is considered a teachable skill within TCM, although both traditions recognize that some people, trained or not, seem to have more of it than others. How do we control for practitioners who have acupuncture star power—the nonverbal ability to direct and build the flow of Qi in their patients? Should we control for it, or should we be training all practitioners to develop it as best they can? There are many types of star power, and there are many configurations of Qi. Some people think Tom Cruise looks boring, and some people's Qi matches with a given individual better than others. If these may be confounding factors, we need to develop controls for them.

Other nonverbal exchanges may also influence outcomes. Consider the attitude of the practitioner. Suppose having an attitude of unconditional love for the patient influences outcomes. (This is a belief very widely held among practitioners of complementary and alternative medicine.) Can we assume that unconditional love does not affect outcome? How do we limit this sort of exchange? There are some parallels between these questions and questions raised about psychotherapy. Is the person more important than the psychotherapeutic theory? In comparing psychotherapies, is the relationship with the patient, the "fit" between patient and practitioner, more important than the method?

We could push these questions even further and ask about the "fit" between the patient and the environment. Just as some people have more Qi than others, some places and arrangements of the environment are considered to have more Qi than others. Does this mean that certain places in the world, where there is an abundance of Qi, are more "healing," or that certain environments are more healing? Given that Qi circulates and accumulates in the body in cycles, are there times of day for which certain conditions should be treated? seasons of the year? Could all of these be confounding factors in studies, or should they be considered part of a "good" treatment?

By comparison with controlling interactions with patients, controlling for patient belief in the procedure or confidence in the practitioner is more easily accomplished. The Treatment Credibility Scale (Borkevic and Nau 1972), which evaluates the relative credibility of different psychotherapies, has been adapted for acupuncture research (Vincent 1990). The Working Alliance Inventory, which evaluates the bond between patient and practitioner and their agreement on goals and tasks, has been modified by Margolin et al. (1998) for use in acupuncture research. But what about other patient factors? Perhaps certain constitutions or genetic endowments are more suitable for acupuncture and should be controlled for. Shared beliefs are as important as individual beliefs. What if there is something about the needling process, within certain cultures or subgroups of individuals, that makes the acupuncture session a particularly apt healing ritual? How do we discover that?

Finally, having settled these issues, we have to choose an appropriate control for acupuncture treatment (Vincent and Lewith 1995). Hammerschlag (1998) discusses five categories of controls: wait-list, placebo, sham, comparison with biomedical standard care, and adjunctive to biomedical standard care. In this classification, the difference between placebo and sham is that placebo controls are noninvasive (e.g., mock needling or mock transcutaneous electrical nerve stimulation [TENS]). Many studies have used so-called sham points, which are not located on Channels but are close to recognized acupoints, to serve as controls. Because we have no Western definition of what constitutes an acupuncture point, how do we know what is a "sham" point? The NIH Consensus Panel (1997, p. 8) noted that, especially in pain studies, sham acupuncture often has effects either intermediate between "placebo" and "real" acupuncture or effects similar to "real" acupuncture. Within TCM there is the tradition of needling so-called *Ah Shi* points. They are located by palpation, usually tender, and not necessarily on any of the Channels. How do we know whether a point is sham or Ah Shi? Furthermore, because Qi is conceived of as being present everywhere in the body, it is theoretically possible that any point has some effect. No consensus yet exists about how to resolve this problem.

If we conceive of the effects of acupuncture as due to placebo, nonspecific physiologic responses to skin piercing, and specific responses to stimulation of particular points (Hammerschlag 1998), then the advantage of sham acupuncture is that it works

well as a control for the first two. The disadvantage is that a much larger number of subjects may be required for a study to have the power to detect treatment differences (Vincent and Richardson 1986). Thompson (1980) noted that when comparing tricyclic antidepressants with an active placebo (which produced a dry mouth), only one in seven trials showed a superior effect for the drug. In contrast, Morris and Beck (1974) found that 65% of double-blind trials showed tricyclics to be superior to inert placebos. Also, as Hammerschlag (1998) points out, both placebo and sham acupuncture raise bioethical concerns by violating the "intent to treat" principle. One way to avoid this problem when treating chronic conditions is to provide acupuncture to control group patients at the end of the trial (Jobst et al. 1986). For more acute conditions, acupuncture versus standard biomedical care or standard biomedical care with acupuncture versus standard biomedical care without acupuncture are the ethical treatment designs.

In summary, the methodologic shortcomings of research on acupuncture all stem from a common source: we have not asked whether acupuncture is an effective TCM treatment, we have asked whether acupuncture needles can be used within Western biomedical diagnosis and treatment (see, e.g., Hammerschlag 1998; Hammerschlag and Morris 1997). This approach may have some merit in other areas, but in psychiatry it is unjustifiable. To begin with, it is inherently illogical. Because we do not have sufficient biomedical markers for mental disorders and do not completely understand the physiologic mechanisms by which they occur, we have no definitive way to test acupuncture as a biomedical treatment. Furthermore, by ignoring TCM diagnosis when selecting points for treating patients, trials of acupuncture have introduced a bias that diminishes the potential power of the treatment.

Future Directions

A new generation of clinical trials is needed in which TCM and biomedical models are directly compared. In such trials, people with a particular biomedical diagnosis also would be diagnosed within TCM. Point selection in the acupuncture group would vary by TCM diagnosis and could vary from treatment to treatment, as long as appropriate clinical manifestations were cited to justify the change (e.g., added Stomach 40 because patient developed nausea, thick white tongue coat, and slippery pulse, indicating Dampness). Patients in the nonacupuncture group also would be diagnosed according to TCM, and subgroup analysis would compare TCM categories in the two groups. Then we could begin to learn which people respond better to which model.

However, this leads us to a final complication. Acupuncture is only a small part of TCM. Of the three types of disease processes, acupuncture is most effective when there is stagnation or obstruction, relatively effective when there is accumulation of excess due to failure to transform, and least effective when a person's primary problem is deficiency. Herbs may be appropriate for any disease process, but in the last two cases most practitioners will almost always prescribe herbs in addition to acupuncture. We are nowhere near being able to design trials, let alone conduct them, to determine whether acupuncture, acupuncture plus herbs, herbs alone, or standard biomedical treatment is optimal for a given individual. But even in mainstream medicine this is the face of the future. The guidelines published in the Joint National Committee's report on high blood pressure (1997) are a good example of this direction. Choice of initial antihypertensive now depends on comorbidities. This recognition, that the condition (the strength) of the individual and the entire constellation of problems he or she manifests must be taken into account before deciding on treatment, is a fundamental principle of TCM.

Wig (1990) pointed out that no single medical system has ever been the sole method by which people seek healing. Parallel systems with differing and often incompatible principles and varying degrees of evidential support are the norm throughout human history, not the exception. Acupuncture is safe and relaxing. It has known physiologic effects that suggest its usefulness for a wide variety of conditions. It also provides both a theory and practice of harmony and balance within and among individuals, communities, and the environment that encourage critical reflection on the biomedical standard of care.

The sophisticated phenomenologic descriptions of health and disease in TCM offer an approach to conditions such as somati-

zation that may be particularly appealing to patients. Adequate research on the application of acupuncture and other modalities within TCM to the treatment of mental disorders will stimulate the development of all approaches to these problems.

Perhaps the greatest value of TCM, whether it is used as a first choice, an alternative, or an adjunct to biomedical care, is its emphasis not on treating mental illness but on restoring mental health. It conceptualizes the individual in a nexus of community and nature, but it always places the individual at the center of treatment.

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