EMOTIONS AND SHIATSU

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SUMMARY

Traditional Chinese Medicine associates five emotions with the Five Elements. These emotions are considered to be major influences on health and disease. When any one emotion dominates internal experience or outward behaviour, it disrupts the smooth flow of Qi. Emotional imbalance provides a clue to the source of disharmony in the body.

In Western medicine, emotions are physiological processes that affect and are affected by other physiological processes such as mental processes, sensory processes, and chemical processes in our body. Emotions influence both body and mind. When emotions are repressed, blocked or denied, other physiological processes such as muscular performance or immune system activity are affected and the end result is often ill health.

The concept of flowing Qi energy in Traditional Chinese Medicine has at least two corresponding paradigms in Western medicine:

- the flow of information carried by the biochemicals of emotion: neuropeptides and receptors. The neuropeptide-receptor system provides a bridge between our emotions, our internal responses and overt behavior.
- the flow of energy and information transmitted through the connective tissue system of the body. The connective tissue system enables sensations generated by touch to influence mental states.

According to Western medicine, both systems facilitate the smooth functioning of a healthy person.

A shiatsu therapist's primary goal is to enable the client to easily access self-awareness, self-regulation, and the wisdom of their own body to achieve genuine healing. TCM sees the shiatsu therapist promoting the circulation of Qi and removing obstructions from the meridians through touch applied to points along those meridians. Western medicine sees this same shiatsu therapist as generating sensory impressions to evoke feeling states, mental responses and physical adjustments that will be transmitted through the body's chemical and electrical streams to relieve discomfort, emotional withdrawal or chronic disability.

EMOTIONS AND TRADITIONAL CHINESE MEDICINE

Oriental medicine associates the emotions with the Yin organs. Each organ is connected with a particular emotion. For example: fear relates to the kidney, anger to the liver, sadness to the lungs, joy to the heart, and anxiety to the spleen. Treating the appropriate organs along their meridians can support

people through emotionally stressful times, helping to regulate imbalances and prevent further upset.

Two organs bear the brunt of all emotional difficulties – the Heart and the Liver.

The Heart is associated with love, warmth, and the formation of relationships. It houses the Mind (Shen), or Spirit, which governs general stability. Emotional stress and shock can lead to mental disturbance, anxiety, and unstable behaviour.

The Liver governs the free flow of Qi. Emotional stress and general frustrations restrain the liver and block Qi. This can cause pain, stuffiness, or obstruction anywhere in the body, as well as depression or forceful explosions of feeling.

EMOTIONS AND WESTERN MEDICINE

Although people consider emotions as being only psychologically based, scientific discoveries have shown that emotions are physiologically based. According to the Longman Dictionary of Psychology and Psychiatry, an emotion is "a complex reaction pattern of changes in nervous, visceral, and skeletal muscle tissues in response to a stimulus... As a strong feeling, an emotion is usually related to a specific person or event and involves widespread physiological changes, such as increased heart rate and inhibition of peristalsis."

Just as the physiology of muscles can be affected by joint and spinal subluxations, the physiology of emotions can also be affected by structural factors. A muscle contracting, when and how you want it, is normal physiology. When a muscle is in a state of constant contraction (or spasm) at an inappropriate time, it is abnormal physiology. Similarly, when an emotional response is happening at an inappropriate time, it is also abnormal physiology.

We feel different emotions in different parts of our body and in different ways. Although the primary locations for the physiology of emotions are in the brain, spine, and autonomic nervous system, emotions affect any and all parts of the body in a physiological way.

1. NEUROPEPTIDES AND RECEPTORS

Recent advancements in neuroscience demonstrate that emotions are normal physiological (organic) processes in the body, some of which are pleasant and others that are quite unpleasant. Emotions are interactions between chains of amino acids that form neuropeptides and receptors. This neuropeptide-receptor system is a chemical-based nervous system moving through extracellular space. It is parallel to the traditional nervous system that is an electrical network based on neuron-axon-dendrite-neurotransmitter connections.

A receptor on a cell waits to pick up messages carried by other chemicals through the fluids surrounding the cell. A neuropeptide is the chemical key that binds to the receptor and transmits a message which results in a change in the state of the cell. A collection of such minute physiological phenomena at the cellular level translates to changes in behavior, physical activity, and even mood.

Neuropeptides and receptors are information molecules, basic units of a language used by cells to communicate across endocrine, neurological, gastrointestinal and immune systems. Neuropeptides are the biochemicals that form the physiological foundation of emotion (anger, fear, sadness, joy), of basic sensations (pleasure, pain), of drive states (hunger, thirst) and of subjective experiences (spiritual inspiration, awe, bliss).

The bonding of particular peptides upon particular cells initiates the experience of a particular feeling state. Conversely, the experience of a particular feeling state can release a particular neuropeptide to bond with receptors on specific cells. These shifts in feeling states are accompanied by simultaneous shifts in physiological profiles as well. So a physical need → a feeling state → physiological shifts → shift in behaviour. The neuropeptide-receptor system is the bridge between our emotions, our internal responses and our overt behaviour. This system ties parts of ourselves to one another and helps us to regulate our lives.

Normally, a person who has a stressful life event experiences the emotion and stores the event as a memory. When the emotional response is expressed, the biochemicals flow freely and all systems continue to work together. At times however, after an event, we don't just return to our "normal" state of being. Our bodies hold on to the response and "lock it" in our nervous system as a conditioned reflex to stimuli associated with the event. When emotions are repressed or denied, the network of pathways gets blocked stopping the flow of vital feel-good chemicals. An insufficient flow of peptide signals at the cellular level sets up weakened conditions that may manifest either in a specific dysfunction or a general influence on body function. It may promote, exacerbate, or even cause recurrences of illness, behaviors, and biochemical imbalances. The end result is often ill health.

2. CONNECTIVE TISSUE

Connective tissue penetrates, wraps, and gives structural shape to all our tissues. Collagen and its fluid ground substance are part of the immediate environment of all our organs and processes. This tough but pliable network is one of the primary structuring, ordering, and organizing elements of our body.

One of the properties of connective tissue is that it behaves like a liquid crystal, becoming more gel-like and solid when it is cooler and more fluid when warmer – the thixotropic effect. Furthermore, the collagen fibers in connective tissue cause

it to function like piezoelectric crystals. Such crystals generate spontaneous electricity when they are distorted by pressure. The entire connective tissue matrix is an electrical generator producing fields of current wherever pressure or movement is taking place, and this energy production has a great deal to do with the warmth and thixotropic responsiveness of fascia.

Collagen structures are also semiconductors of the currents they are generating, carrying the electrical energy and any sort of information that could be encoded in those electrical streams throughout the body. Thus the connective tissue web converts energy into various forms, one of which is information. And since many of the body's proteins are able to initiate and receive these currents and signals, there is a wide variety of information coursing through the network. The meridians may well be channels of least resistance for specific organ signals, the points may be semiconductor nodes that process and refine that flow, and cross-over points may be the switch mechanisms through which energy in one meridian jumps directly to another.

Recently, it has been recognized that muscle-like contractile proteins are present in virtually all cells indicating that this integrated energy/information network extends into each cell. The cytoskeleton matrix is continuous outside the cell and is linked directly to the local supporting collagen structures. So we have an interconnected connective tissue system that extends from organs, bones, tendons and muscles at the macroscopic level, down to the cell surface and through it, into the cytoplasm where it contacts the nucleus.

3. SKIN AND THE BRAIN

Skin is one of the largest single organs in the body. An area of skin the size of a quarter contains some 3,000,000 cells, 100 sweat glands, 50 nerve endings, 3 feet of blood vessels, and about the same length of lymph vessels. The whole skin has approximately 640,000 sensory receptors that are connected to the spinal cord by over 500,000 nerve fibres. There are 7-135 tactile points per square centimeter of skin.

Skin is the largest, most varied and constantly active source of sensations in the body. Of the five senses, touch is the only one that involves the whole body.

The ectoderm, one of three primitive layers of cells of the early embryo, produces both the skin and the nervous system. Skin is the outer surface of the brain or the brain is the deepest layer of the skin. Every touch initiates a variety of mental responses. The use of touch and sensation to modify our experience of peripheral conditions exerts an active influence in the organization of reflexes and body image deep within the central nervous system.

So skin offers an excellent means of influencing internal processes just as internal states of mind and of physical health directly affect skin. Tactile

stimulation is necessary for the healthy physical development of babies. Touch is food.

4. BRAIN OR BODY?

What is the origin of what we experience as emotions, drives, and feeling states – the brain or the various other tissues and systems of the body?

Core limbic brain structures (amygdala, hippocampus, limbic cortex) contain 85-95% of the neuropeptide receptors. In all locations where information from any of the five senses (sight, sound, taste, smell, touch) enters the nervous system, there is a high concentration of neuropeptide receptors. Neuropeptide and their receptors join the brain, glands, spleen, bone marrow, lymph nodes and immune system in a network of communication between the brain and the body.

The limbic system of the brain, which is involved specifically in emotional experiences and reactions, is situated at the crossroads of many channels of information and response in the nervous system. It is where all sensory information coming up through the spinal cord enters the brain, through which all motor commands flow back downward, through which information from all the special sense organs in the cranium enter the brain, and it is directly connected to the pituitary gland and through it to the autonomic visceral system.

Another major information channel enters the brain in this central limbic region: the bloodstream. Thus the limbic system is where chemical information in the blood and chemical information secreted by neurons are mixed with overall firing patterns in the brain. Chemical messages are transformed into shifts in brain states (mind) and brain states are transformed into chemical messages. Physical events are translated into feeling states and vice versa.

Every change in the physiological state is accompanied by an appropriate change in the mental emotional state, conscious or unconscious. Conversely, every change in the mental emotional state, conscious or unconscious, is accompanied by an appropriate change in the physiological state.

Emotions are the nexus between body and mind, going back and forth between the two and influencing both.

IMPORTANCE OF TOUCH AND BODYWORK

When we do not have an awareness and appreciation of our tactile senses, both exteroceptive (sensitivity to external stimuli)and proprioceptive (ability to sense the position, location, orientation and movement of the body and its parts), we are cut off not only from the world around us but also from a great deal of specific mental and physiological functions. Some sensory associations can have a powerful, diffuse effect, changing the manner of many or even most of a person's

existing patterns of behaviour to one degree or another. By creating through skilled bodywork a sustained series of sensory impressions suggestive of pleasure, of softness, of length, of relaxation, the reduced muscle tone normally associated with these feelings can be evoked. Pressure is relieved on proprioceptive receptors throughout the body's tissues; circulation and metabolic activity are accelerated in formerly constricted and immobile areas so that pleasant and encouraging sensations creep into these areas to displace pain or numbness; body positions that formerly produced discomfort are now adopted with ease. The complete and coherent flow of sensory information with which we organize our bodies and our minds is restored.

A bodywork session is essentially a carefully controlled tactile environment. The aim is to evoke feeling states and mental response in addition to physical adjustments. This experience can break a vicious circle of discomfort, withdrawal, and subsequent disability that may have been perpetuated for years. Pleasant peripheral sensations lead to → changes in inner feelings → changes in habitual attitudes → changes in the tone and functioning of muscles → more pleasant sensations.

Each of us is already our own portable pharmacy. All that is necessary is for us to learn to open and close the peptides' cellular vials. And the most direct way of doing that turns out to be the exploration of the world of feelings – feelings that are caused by peptide shifts, feelings that create peptide shifts, and a feel for the physiological effects that follow. Getting in conscious touch with tissues and looking for the feelings that are healing are what effective bodywork is about.

Physical sensations, particularly the large variety of tactile sensations, are the foundations of self-awareness. The flow of sensory information useful to the mind is the operative principle in effective bodywork. Sensory input is the primary initiator and organizer of all levels of behaviour.

Clear sensory information is the content of effective bodywork. But it is also important that it be pleasurable so that we can focus on the sensory input openly enough and long enough to integrate them to the degree that they become genuinely useful to the mind in organizing its perceptions and responses.

A bodyworker first cultivates in himself a deep feeling (grounded and energized) state. Through contact, this feeling quality is experienced by the client as sensations. It is then transformed to an emotional feeling quality by neuropeptide releases and distribution. Further contact by the bodyworker stimulates more peptide release. Eventually the client ends up in a feeling state that is more like the bodyworker's. It is a state in which the client can much more easily access self-awareness, self-regulation, and repair of all kinds. It is the improvement of this flow of information and reconnection with the wisdom of their own body that leads to the genuine healing. All that the bodyworker does is to re-introduce these things to the consciousness of the client.

The intent, training, and experience of the bodyworker are crucial. How to reach the depths without causing discomfort, how to focus pressure to produce particular sensations in particular places, how to manipulate a limb in such a way as to convey a sense of optimal movement rather than random or restricted movement, how to bring into the sensory foreground areas long since forgotten, how to alleviate compensations without worsening the original injury – these are the specific qualities that can contribute to increased awareness, enhanced organization, and improved health in the receiver.

Practiced touch can not only deliver a collection of sensory impressions. It can help us to learn a whole new manner of sensing and behaving. It can help us to learn to more accurately assess our condition, to identify and resolve stress, to reverse vicious circles, to successfully break out of our ingrained patterns and our compulsions.

SHIATSU

These recent advances in neuroscience and cellular biology explain what TCM practitioners have known for thousands of years regarding the effectiveness of bodywork and shiatsu, in particular. The Western view supports and confirms the importance of the principles and rules of effective shiatsu.

Shiatsu affects the superficial and deep tissues, the fascial, myofascial, neuromuscular, musculoskeletal, circulatory, lymphatic, respiratory, digestive, eliminative, and craniosacral systems. In other words, shiatsu affects all our physiological processes, including emotions.

The repetitive press and release techniques of shiatsu generate minute localized electrical charges in the tissues that raise the energy levels within the tissues. When the body is in a more fluid state, manual intervention allows the body to be freed of adhesions and contractures that are the cause of so much pain and restriction.

Properly applied compression corrects intercellular fluid congestion and rebalances fascial electrodynamics by releasing the appropriate electrostatic charges necessary to neutralize the imbalance.

Pressure on the cells helps to move toxins that have become stagnant with disease, lack of use, or trauma. This produces a rejuvenation effect at the cellular level, enhancing cell function, increasing cellular metabolism, and lengthening the life of each individual cell while extending the time tissues can exist in a state of health.

Digital compression on soft tissues helps to initiate an inflammatory response from the immune system that allows the body to clean up residual cellular debris and for tissues to return to normal functioning.

Connective tissue when manipulated by compression loosens the molecular bonds of basic components of the cell (ground substance) turning it from a gel state to a more fluid state. This makes it possible for shiatsu to free up and rebalance myofascial structures that cover the entire body like a blanket.

Digital compression works to lengthen and relax muscles and tendons. When the body is injured, this memory is stored in the medulla oblongata, the oldest and most basic part of the brain that contains an ongoing program that determines the resting length of every muscle fiber in the body. With injury, sometimes joint imbalance related to muscle and fascia strains cause pain and discomfort long after the actual trauma heals. By mechanically lengthening muscle fibers through compression, and maintaining that stretch long enough for the feedback system to be complete and reprogram it's feedback loop (usually 3 to 5 seconds) the brain will reset the involved muscle-resting length pattern. This same process pertains to tendons in the body.

Although deep tissues are not directly palpable, they can be freed of restriction and returned to normal range of motion by indirect manipulation. By freeing the larger muscles of their need to compensate for an otherwise weakened area, this brings relief of pain through the restoration of structural balance.

There are three reflexes that shiatsu stimulates:

- The cutaneovisceral reflex occurs just by touching the skin in various areas. This reflex follows the nerves to deeper organs and tissues and works to heal and bring balance to those directly inaccessible parts as well.
- Through compression of the eyes, the ocularcardiac reflex stimulates the vagus nerve to slow down the rhythm of the heart and contribute to a deep sense of relaxation.
- Through pressure on the carotid artery at the level of its bifurcation, the carotid sinus reflex is triggered causing slowing of the heart rate, lower blood pressure and a relaxation response.

The circulatory system returns deoxygenated blood via the veins and returns nutrient-depleted and waste loaded fluid via the lymphatic system. Compressive techniques are effective in stimulating the lymph system to dump excess fluids, create optimum cellular nutrition and re-establish appropriate ionic balance.

The gentle movement of shiatsu creates movement at every section of the spinal axis (column) facilitating the movement of cerebrospinal fluid (CFS) that serves the same nutrient-bearing function and waste removal functions for the brain and spinal cord.

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