

The Application of the Medicine Drum to Sound Healing in the context of Group Drumming

Pythagoras of Samos, a very wise teacher of ancient Greece, knew how to work with sound. In his mystery schools in Delphi and Crotona, he taught his students how certain musical chords and melodies could produce responses within the human organism. He demonstrated that the right sequence of sounds, played musically on an instrument, can change behaviour patterns and accelerate the healing story (Lingerman, 1995).

I am interested in the sacred medicine drum and its application to music therapy and sound healing in the context of group drumming and with specific reference to *how* the drum has the apparent ability to treat a wide range of physical, emotional and spiritual conditions. To investigate this, I have researched many published texts and research papers on the subject, as well as considered my own personal experiences of sound healing with the drum, on myself and with others.

To begin with, it is important to understand the physiological effect of drumming on the brain. Scientific research in the field of quantum mechanics demonstrates that at the atomic and sub-atomic level, all matter, whether animate or inanimate, is *energy*. It is widely considered that drumming has numerous *energetic* effects. At the physical level, drumming harmonises the left and right hemispheres of the brain. Normally one hemisphere is active and dominant over the other, which is semi-dormant.

Redmond (1997) recounts how “the brain is divided into two hemispheres...generally, either the right or left brain dominates in cycles lasting from 30 minutes to 3 hours. While one hemisphere is dominant, the memories, skills and information of the other hemisphere are far less available. But in states of intense creativity, deep meditation or *under the influence of rhythmic sound*, both hemispheres may become entrained in the same rhythm. This state of unified whole brain functioning is called *hemispheric synchronisation* or *the awakened mind*”. Scientists believe that hemispheric synchronisation may be the neurological basis of transcendent states of consciousness (Friedman, 2000).

Budzynski (2006) recounts how, using electroencephalographs, it is possible to measure the number of energy waves per second pulsing through the brain, classifying states of consciousness according to the frequencies of the waves created. Normal outwardly focused attention generates *beta* waves which vibrate at 14 to 40 cycles per second. When awareness shifts to an internal focus, such as to the repetitive beat of the drum, our brain slows down into the more rhythmical waves of *alpha*, vibrating at 7-14 waves per second. The *alpha* state is defined by relaxation and centering into ourselves. Dropping down to 4-7 cycles per second the brain enters the *theta* state in which there is an interfacing of conscious and unconscious processes, producing hypnagogic dream-like imagery and auditory experiences. Redmond

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writes that “*theta* is the source of sudden mystical insights...and is marked by physical and emotional healing”.

So the physiological effects of drumming are clearly researched and documented. The steady beat of the drum, stimulating the *alpha* and *theta* rhythmical waves of the brain, enables us to relax, to meditate – to connect with that part of ourselves that ordinarily can become disconnected through our constant yet ultimately *mundane* worries and concerns of daily life – money, work, relationships, domesticity, ageing - the sorts of worries that create *dis-ease* within our core, the sorts of issues which, as a result of constant worry or anxiety, we might find at the root of illness; be that a physically manifested condition, or an emotional condition such as addiction.

And so perhaps this should be at the root of our understanding of the beneficial healing effects of drumming on the body – reconnecting with, as Grandfather Stalking Wolf describes, *The-Spirit-Which-Moves-Through-all-Things*.

"Grandfather spoke again, saying: *Trying to live a spiritual life in modern society is the most difficult path one can walk. It is a path of pain, of isolation, and of shaken faith, but that is the only way that our Vision can become reality. Thus the true Quest in life is to live the philosophy of the Earth within the confines of man. There is no church or temple we need to seek peace, for ours are the temples of the wilderness. There are no spiritual leaders, for our hearts and the Creator are our only leaders. Thus we walk this path alone, for each Vision, each Quest, is unique unto the individual. But we must walk within society or our Vision dies, for a man not living his Vision is living death.*" (Brown, 2000).

The medicine drum helps us to live our vision – and the drum healer knows this. Drum circles have been part of healing rituals in countless cultures through millennia, so it is therefore not surprising that drumming is now gaining popularity as a complementary therapeutic mode, even to the extent of its recognition within the traditional medical arena.

The benefits of group drumming have been defined as follows (Reuer, et al, 1999):

- Response to rhythm is basic to human functioning, making percussion activities and techniques highly motivating to people of all ages and backgrounds;
- Pure percussion activities are interesting and enjoyable to all people regardless of ethnic and cultural background, musical preferences, or age range, making these activities useful in creating groups that are positive for a wide variety of people;

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- Participation in active group percussion experiences has physical benefits including sustained physical activity, relaxation, and use of fine motor skills;
- A strong sense of group identity and a feeling of belonging is created because participants are actively making music together and because the sustained repetition of the steady beat brings people together physically, emotionally and mentally (rhythmic entrainment);
- Percussion activities can be done with little or no previous musical background or training, making these activities accessible to all people.

These principles make a lot of sense and provide ample rationale for the use of drumming as a therapeutic healing modality.

Researchers have taken this to a further level of study, examining the measurable physiological effects associated with drumming activities using a controlled experimental design in normal subjects (Bitman et al ,2001). The initial working hypothesis was that “group drumming can alter stress-related hormones and neural mediators with subsequent consequences for immunologic reactivity”. A wide range of stressful environments and psychosocial factors are well known to alter the responses of the body’s immunology. When present for extended periods, such factors have been associated with cancers or infectious diseases in terms of the reduced ability immunologically for the body to fight such diseases.

And so Bitman and his colleagues conducted an experiment with the objective of determining the role of group-drumming music therapy “*as a composite activity with potential for alteration of stress-related hormones and enhancement of specific immunologic measures associated with natural killer cell activity and cell-mediated immunity*”. A total of 111 age- and sex-matched volunteer subjects (55 men and 56 women, with a mean age of 30.4 years) were recruited and organized into six preliminary supervised groups using various control and experimental paradigms designed to separate drumming components for the ultimate determination of a single experimental model, including 2 control groups (resting and listening) as well as 4 group-drumming experimental models (basic, impact, shamanic, and composite). The composite drumming group using a music therapy protocol was selected based on preliminary statistical analysis, which demonstrated immune modulation in a direction opposite to that expected with the classical stress response. The final experimental design included the original composite drumming group plus 50 additional age- and sex-matched volunteer subjects who were randomly assigned to participate in group drumming or control sessions.

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The study concluded that “drumming is a complex composite intervention with the potential to modulate specific neuroendocrine and neuroimmune parameters in a direction opposite to that expected with the classic stress response” (Bitman et al ,2001).

Friedman (2000) has also documented a significant amount of medical research pertaining to the physical, emotional and spiritual benefits of group drumming in alleviating a wide range of physiological conditions, including:

- Alzheimer’s Disease
- Cancer
- Mutiple Sclerosis
- Paralysis
- Parkinson’s Disease
- Speech problems
- Stroke rehabilitation
- Alcohol and drug related additions
- Disabilities
- Psychiatric rehabilitation
- Stress management

Without exception, his documented case studies verify an improvement in all of these conditions as a result of regular, sustained drumming within the group context, further supporting the research outcomes of Bitman et al.

In my own experiences of drumming in a circle, these most often occur in my workplace (a university), where I arrange to meet my circle of drumming friends over the lunchtime period, and we meet at one of our 4 Sacred Medicine Wheel sites across the campus. My work is often demanding and stressful, so taking the opportunity to have a break, and to drum, in the middle of my working day, can logically only be beneficial to my emotional and therefore physical state. Even as I leave my office and trek through the woods to meet my fellow drummers, my thoughts stray anxiously to the work ahead of me that afternoon. Even as we meet and greet, those anxieties remain – and are shared with my fellows; “I’ve only got 40 minutes”, or “I

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“shouldn’t really be here”, or “sorry I’m late, my meeting over-ran and went badly” are common qualifying statements that we utter to each other as soon as we meet.

It is only as I pick up my drum and hold it in my left hand with my beater in my right, that I take a deep breath and settle into the space I am in, *right here, right now...*the only thing on my mind right now is how my medicine drum will allow me to enter that deep and relaxed state of mind. I take a deep breath in and settle into my body, connecting with Mother Earth. I let out a sigh and feel the relaxation moving through my body, in anticipation of an extraordinary experience.

Slowly and deliberately, we begin to play our drums in unison, each beat coinciding with a breath. I start to slow down as I feel the drum beat and my breath become as one. Then I begin to beat the drum twice on both the in and the out breath. With each beat, my breath and heart rate slows, and blood pressure decreases. I feel myself moving out of the stressed mode I was in. I begin to feel lighter, and breathing deeper. The natural medication of drumming has created the desired inner state. As our drums entrain together reaching a collective crescendo, the collective power of our relaxed consciousness rebounds around our circle, a spiraling vortex of love and lightness. We feel as one, connected to all things, and yet at the same time, we are individual, standing firm in our own power.

As Friedman concludes in his chapter entitled *An Ancient Healing Instrument Meets the Future*:

“As we begin making the same choices that the ancients did, choosing natural modalities for healing, we find ourselves feeling healthier more of the time, and more closely attuned in with our inner rhythms and inner needs. The future, thus, becomes the present”.

References

- Bitman, B, Berk, L, Felten, D, Westengard, J, Simonton, C, Pappas, J & Ninehouser, M, (2001). *Composite Effects of Group Drumming Music Therapy on Modulation of Neuroendocrine-Immune Parameters in Normal Subjects*, in *Alternative Therapies Journal*, Vol 7, No 1, pp38 - 47
- Brown, T Jr, (2000). *The Quest: One Man's Search for Peace, Insight, and Healing in an Endangered World*, Berkley Trade
- Budzynski, T PhD, (2006). *The Clinical Guide to Sound and Light*, Stanford Institute for Creativity and the Arts, <http://www.stanford.edu/group/brainwaves/2006/theclinicalguidetosoundandlight.pdf>
- Friedman, R.L, (2000). *The Healing Power of the Drum*, White Cliffs Media
- Lingerman HA (1995). *The Healing Energies of Music*. Chicago: Theosophical Publishing House
- Redmond, L (1997). *When the Drummers Were Women: A Spiritual History of Rhythm*, Three Rivers Press
- Reuer B, Crowe B, Bernstein B (1999). *Best Practice in Music Therapy Utilizing Group Percussion Strategies for Promoting Volunteerism in the Well Older Adult*, American Music Therapy Association