



Image courtesy of Sarajane Williams.

## Vibroacoustic Harp Therapy In Pain Management: Soothes Body, Mind, and Spirit

Harp music used as a form of therapy can reduce pain and anxiety, enhancing quality of life.

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**H**arp music has been enchanting listeners for thousands of years. The revered instrument of kings, gods, and angels, the harp has historically symbolized a mystical ladder<sup>1</sup> connecting this world to the next. Today, the harp is being employed as a therapeutic instrument at bedsides in hospitals, nursing homes, hospices, and other clinical settings, where it symbolizes and serves as a vessel for healing, end-of-life transition, and transformation.

This article will review the uses and benefits of harp music and, more specifically, vibroacoustic harp therapy (VAHT) in a clinical setting.

### Harp Therapy as a Healing Instrument

When used as a form of therapy, the harp's music, paired with its aesthetically pleasing image, can provide comfort, distraction, and relief from anxiety and pain; as well as evoke pleasant associations and memories. Therapeutic harpists use the intrinsic healing elements of live music and sound to synchronize a patient's physiological rhythms to

the harp music and provide an environment conducive to the healing process. The home or clinical setting largely dictates what size harp (from 22 to 47 strings) can be used (Figure 1, see above). Controlled studies have shown live, bedside therapeutic harp music to be beneficial in reducing pain and anxiety,<sup>2-4</sup> stabilizing vital signs,<sup>5</sup> and inducing deeper sleep.<sup>6</sup> Moreover, in a 2004 survey of 182 patients, families, friends, and staff who were exposed to 25 to 50 minutes of live harp music at Massachusetts General Hospital Cancer Center in Boston, 81% reported increased relaxation and calm mood resulting from exposure to the music.<sup>7</sup> End-of-life music vigils also can enable a patient to achieve a peaceful transition.<sup>8</sup>

### Vibroacoustic Harp Therapy

Since its inception in 1990,<sup>9</sup> VAHT has reduced pain and pain-related symptoms and has enhanced the quality of life for hundreds of patients. Similar medical benefits from the use of specific low frequencies, embedded into synthesized music in the form of vibroacoustic therapy, have been well documented by Norwegian researcher Olav Skille<sup>10</sup> and

others.<sup>11</sup> During a VAHT session, which often is described as “musical massage,” live harp music is amplified through a sound table, chair, or other vibrotactile device (that is, any device that assists the patient in detecting sounds through their sense of touch). After being seated on a vibrotactile device, the patient is asked to focus on areas of tension/pain in the body. During that time, specific tones resonate in those areas and are identified by a dialogue between the patient and the practitioner. Each patient experiences the musical tones in different ways at different times; therefore, the therapy is a very dynamic process and is tailored to the unique individual. Appropriate music is improvised or selected based on the patient’s needs.

### How it Works

The delivery of amplified acoustic harp music through a vibrotactile device provides a powerful, direct, and immediate effect. The wide range of frequencies and overtones—produced on a harp with a minimum of 36 strings—is capable of vibrating and resonating not only with a patient’s dense, physical body, but also with the person’s mental, emotional, energetic, and spiritual dimensions. The patient experiences multilevel stimulation and harmonization, thereby activating the parasympathetic nervous system,<sup>12</sup> and synchronizing the diverse oscillatory systems of the body. This is accomplished through the tempo of the music as well as through the resonant, vibratory qualities of the instrument.

Through rhythmic entrainment (the synchronization of organisms to an external rhythm), the heart rate, heart rate variability (HRV), brain waves, and breath begin to work together in a more coherent fashion.<sup>13</sup> The indices of physical improvement might include decreased respiratory rate;

**Table 1. Potential Benefits of VAHT**

- Coherence (synchronization among diverse physiological systems in the body)
- Stimulation/balancing of chi energy
- Lymphatic stimulation
- Pain and stress reduction
- Stabilization of vital signs (decreased blood pressure, heart rate, and respiratory rate)
- Perceptual changes (ie, floating sensation, synaesthesia, transpersonal experiences)
- Improved breathing
- Improved sleep
- Increased mobility/range of motion/muscular relaxation
- Enhanced emotional processing and integration

VAHT, vibroacoustic harp therapy

lowered blood pressure; decreased heart rate; and improved HRV, pain, and symptom relief. According to Mark Rider, PhD, “The brain, mind, and body are harmonically organized. Harmonic refers to a mathematical arrangement in which energy patterns exist in nodes corresponding to whole number multiples of a fundamental frequency, such as [that] found in musical overtones and in the quantum physics of the atom. Furthermore, this harmonic organization enables instantaneous communication among these components.”<sup>13</sup>

When pressure or vibration is applied to the human body, for example, the signal is transduced to an electromagnetic signature. Every cell within the human body vibrates and emits a characteristic electromagnetic signature. According to the latest research in the field of psycho-neuro-immunology, receptors in the cells of the body are activated by specific frequencies and their higher harmonics. These frequencies, which fall within the audible sound range, affect cellular activity in the same way that peptides, drugs, or emotions would. Molecules,

located throughout the body, communicate with each other through resonance, through a psychosomatic network of cellular communication, and through a matrix of collagenous fibers. This model accounts for high-speed information transfer, over and above the synaptic firings of nerve endings.

### Studies of VAHT

A pilot study co-conducted by this author has demonstrated the positive effects of VAHT on HRV.<sup>14</sup> The study consisted of 10 subjects who received 15 minutes of VAHT, and all of whom reported some subjective decrease in pain/tension on a visual analog scale (VAS) at the end of the study. The average HRV was assessed and shown to improve in all patients. The actual VAHT session period yielded the greatest improvement in the subjects’ heart rate entrainment compared to pre and post measures.<sup>14</sup> It is theorized that the powerful vibratory effects of VAHT interrupt impulse transmission among pain pathways and other sensory channels, directing awareness inward. Based on this author’s experience and feedback

**Table 2. Pain/Tension Reduction in VAHT Patients (n=46)**

Area of Assessment	Average Pain/Tension Reduction (%) <sup>a</sup>
Hands/Arms	-18% (1.61)
Face	-15% (1.31)
Head	-16% (1.47)
Neck	-27% (2.44)
Shoulders	-27% (2.40)
Back	-29% (2.62)
Chest	-15% (1.36)
Abdomen	-12% (1.10)
Hips/Thighs	-20% (1.82)
Legs	-19% (1.70)
Feet	-16% (1.47)
Mood	-21% (1.93)
Overall	-26% (2.35)

<sup>a</sup> Number in parentheses is the average reduction in score on a 1 through 9 visual analog scale. Subjects received 25 to 50 minutes of VAHT. VAHT, vibroacoustic harp therapy

from patients, balancing of chi energy and stimulation of lymphatic flow can also result from VAHT. Some chronic pain conditions, such as complex regional pain syndrome (CRPS), are believed to be caused by internally generated, low-frequency oscillations and altered rhythms of information flowing between the thalamus and the cerebral cortex.<sup>15</sup> The delivery of rhythmic entrainment and whole body vibration achieved with VAHT is capable of overriding the patient’s “normal” sensory input and signaling using a higher amplitude and frequency, thereby establishing a new flow of information and symptom relief.

When the patient is relaxed, abstract thinking slows and awareness expands. VAHT often produces responses such

as deep relaxation, dream-like imagery, pain and tension reduction, increased energy, perceptual changes, increased body awareness (beyond the constricting attention to pain), and feelings of being nurtured. Internal imagery often provides new awareness, positive reframing, and enhanced processing and integration of psychological material. The patient/therapist interaction allows for immediate responses in the course of the session (Table 1, page 57).

In a recent and previously unpublished review this author conducted of 46 patients undergoing first-time sessions in which VAHT was administered for 25 to 50 minutes, all subjects reported either no change, or decreased pain or tension (averaging 12% to

29% reduction in pain based on a VAS) in various areas of the body.<sup>16</sup> All subjects also reported improved mood post-session, regardless of diagnosis or symptoms. No negative side effects were noted. A variety of chronic conditions were represented in the study, such as anxiety, arthritis, back pain, “chemo brain” (cognitive changes that may result as a side effect of chemotherapy), CRPS, depression, fibromyalgia, headaches, insomnia, lymphedema, tinnitus, and post-traumatic stress disorder. Patients self-rated their pain pre- and post-session on a 9-point VAS (Table 2).

When narrowing the scope of the study to the 26 patients in the group who had back pain levels ≥5 (on VAS) pre-session, the researcher reported a 41% (3.65-point) decrease in pain and tension rating at the end of the session. Similarly, the 27 patients with an initial overall pain rating ≥5 reported a 32% (2.89) decrease in symptoms post-session. In addition, a 35% (3.19) improvement in mood was noted post-session in the 16 patients with initial mood ratings ≥5 (1=good/peaceful to 9=very mad, bad, or sad).

Highlighted below are four case examples from the study where patients’ pain symptoms were alleviated following VAHT sessions.

**CRPS**

Laura is a married, 42-year-old woman who was referred to a VAHT therapist by a neurologist after developing CRPS following a left ankle injury. Laura is employed full time as a graphic designer and was unable to find anything that would relieve her chronic pain. Her left foot turned from a cold, dusky blue to pink after receiving 30 minutes of VAHT, and pain in her left foot decreased from 6 to 3 on a 9-point VAS. During the session, Laura “saw” an image of people’s feet and then envisioned that a lock on her

left ankle opened up. She also saw blue colors. The next VAHT session produced similar results: her left blue foot turned pink after VAHT, and her pain decreased from 7 to 4 on VAS.

### Chronic Widespread Pain and Asthma

Theresa is a 60-year-old nurse with chronic back, hip, shoulder, neck, and left knee pain. She also had multiple medical issues including arthritis, asthma, and tinnitus. After receiving 20 minutes of VAHT, her chest congestion stemming from long-term asthma lessened and her back pain and knee pain resolved (from 6 to 1 and 5 to 1 on a VAS, respectively). The patient was overwhelmed by the results. It was the first time she was virtually pain free in at least 3 years, despite numerous other attempts to find pain relief.

### Cancer Treatment

Jane is a divorced 45-year-old woman who had developed lymphedema in her chest following a double mastectomy performed 3 years earlier. She also had “chemo brain” that was characterized by cognitive impairments, especially when it came to distinguishing time and direction. Jane was referred to a VAHT therapist by a neurologist. During her 60-minute VAHT session, she experienced a

reduction in muscular tension, as well as an increase in emotional release and images of dancing, water, and childhood memories. It was the first time that a treatment “didn’t hurt.” Jane’s mood improved from a self-reported 9 to 2 on a VAS, overall tension and pain decreased from 7 to 3, neck pain decreased from 8 to 3, and chest pain decreased from 6 to 3 post-session.

During the next session, Jane reported that she was delighted with the outcome of the previous session. The effects lasted several days and she noted improved mood and energy, decreased lymphedema, and improved cognition. She felt very relaxed after her second VAHT session, and experienced several visual images of colors (synaesthesia). Post-session pain relief results on a self-reported VAS included: overall, 6 to 2; chest pain, 6 to 2; shoulder pain, 8 to 2; and abdominal pain, 8 to 1.

### Paralysis

Sharon is a 53-year-old woman who is married and is employed as a harp teacher. During a first-time training demonstration on VAHT, Sharon experienced 5 minutes of VAHT. She was overjoyed to find that she readily regained sensation and movement in the 3 toes of her left foot that had become numb and paralyzed 3 years

earlier as a result of back surgery. Four years later, she reported continued normal sensation and movement in her left foot.

### Conclusion

While further research is needed, clinical experience indicates that the sympathetic resonance of harp strings, the presence and therapeutic intention of the harpist, and the production of warm full-frequency analogue musical information dramatically contrasts with the electronic feel of digitized, recorded music and brings many new results and added dimensions to the therapeutic experience in pain management. This pleasant non-pharmacological alternative for patients has virtually no untoward effects. VAHT integrates past, present, and future medicine to soothe the body, mind, and spirit. ■

**Author’s Bio:** *Sarajane Williams, MA, CCM, VAHT, is a licensed psychologist, harpist, composer, and author. She has more than 40 years of experience in various roles in the healing arts, including nurse, cardiopulmonary technologist, director of a cardiac catheterization laboratory, and biofeedback therapist in a chronic pain center.*

*Ms. Williams has disclosed that she is the publishing editor of The Harp Therapy Journal.*

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