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Craniosacral Therapy

Abha Sachdev
Nidhi Kashyap
Savita Tamaria

ABSTRACT

Craniosacral therapy (CST) is a non-pharmacological approach which is used to treat a wide variety of disorders such as neck and back pain, migraines, mental stress, TMJ Syndrome, chronic pain conditions such as fibromyalgia, etc.. It involves manually identifying restrictions in the craniosacral system and using soft, gentle hands-on techniques to correct it. It helps in easing out the restrictions of nerve passages, optimizing movement of the cerebrospinal fluid through the spinal cord and restoring proper position of the misaligned bones. Although being a useful therapy, it has a lot of criticisms and little scientific support for the underlying theoretical model.

Keywords Craniosacral Therapy, Cranial Rhythm.

INTRODUCTION

Craniosacral therapy (CST) involves manually identifying restrictions in the craniosacral system which includes the bones, membranes and cerebrospinal fluid (CSF) that surround the brain and spinal cord, and using soft, gentle hands-on techniques to both normalize the cerebrospinal fluid rhythm and correct restrictions in perispinal tissues and fascia.[1] Manual palpation and manipulation of this system theoretically affects sensory, motor, cognitive and emotional processes in the nervous system. It is purported to reduce the use of conventional pain medications and improve daily functioning in a variety of conditions.[1]

In the early 1900s, Dr. William Sutherland concluded that skull bones are not firmly fixed but can move relative to each other. With these observations, he developed cranial osteopathy. In recent years, Dr. John Upledger further developed Sutherland's observations and incorporated them into a treatment regime called craniosacral therapy.

According to the osteopathic literature, craniosacral therapy (CST) is based on five physiological premises: 1) motility of the central nervous system, 2) rhythmic fluctuation of the cerebrospinal fluid, 3) mobility of the 22 bones of the skull, 4) mobility and continuity of the meninges between the cranium and sacrum, and 5) continuity of the meninges with the connective tissues (fasciae) of the rest of the body. The goal of CST is to effect somatic and visceral bodily changes by using these cranial bone-meningeal-fascial connections, viewing the patient as an

Author's Affilation: Lecturer, Banarsidas Chandiwala Institute of Physiotherapy, Chandiwala Estate, Maa Anandmai Marg, Kalkaji, New Delhi

Reprinht's request: Dr. Abha Sachdev, Banarsidas Chandiwala Institute of Physiotherapy, Chandiwala Estate, Maa Anandmai Marg, Kalkaji, New Delhi.

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"integrated totality."[2]

BASIS OF CRANIOSACRAL THERAPY

The craniosacral system consists of the three layered membrane system (the meninges viz. Dura mater, arachnoid membrane & pia mater), the enclosed cerebrospinal fluid, the physiological structures that control fluid input and outflow, and related bones. It is a semi-enclosed biological hydraulic system encompassing the brain and spinal cord. Within the system, the cerebrospinal fluid rhythmically pulses at a rate of about ten cycles per minute. This is called the Craniosacral Rhythm or the Cranial Wave. This is independent of heart or respiratory rhythms.

It is suggested that the skull bones must be slightly moving continuously to accommodate the fluid pressure changes within this semi-closed hydraulic system.[3] The craniosacral system's fluid barrier is the dura mater, which also composes the skull's inside lining. The membrane barrier is also attached to the upper neck vertebrae, the lower back sacrum, the tailbone, and the openings in the spinal column. Any restriction that interferes with the membrane's ability to accommodate the rhythmically fluctuating fluid pressures and volumes is a potential problem.

Craniosacral therapy's object is to find areas of restricted movement that compromise function and re-establish normal movement. Because the craniosacral system encloses the brain and spinal cord, it influences the entire nervous system, affecting many body functions.[4]

Upledger & Vredevoogd gave a “pressurestat model” to explain the events within the Craniosacral system. They suggested presence of nerve plexuses along with a variety of receptors in the sagittal suture that would sense both compression and stretch of the intrasutural material. The intrasutural stretch receptors signal the choroid plexuses to shut down production of CSF when the suture is expanded. Sutural expansion results from an increased volume/pressure of CSF within the meningeal compartment. Because CSF is continually being reabsorbed into the venous system during the shutdown, CSF volume is gradually reduced and cranial vault stretch receptors are deactivated. As CSF volume further reduces, intrasutural compression receptors are activated and signal the choroid plexuses to resume CSF production. As the fluid compartment refills, the cycle repeats.[4]

THE PROTOCOL

A ten-step protocol for Craniosacral Therapy serves as a general guideline, which includes (1) analyzing the base (existing) cranial rhythm, (2) creating a still point in that rhythm at the base of the skull, (3) rocking the sacrum, (4) lengthening the spine in the lumbar-sacral region, (5) addressing the pelvic, respiratory and thoracic diaphragms, (6) releasing the hyoid bone in the throat, and (7-10) addressing each one of the cranial bones. The practitioner may use discretion in using which steps are suitable for each client, and may or may not follow them in sequential order, with time restraints and the extent of trauma being factors.

Patients often report a sense of deep relaxation during and after the treatment session, and may feel light-headed. This is popularly associated with increases in endorphins, but research shows the effects may actually be brought about by the endocannabinoid system.

BENEFITS

It has been reported that CST could be effective in the treatment of fibromyalgia, [5,6] autism, headache, temporomandibular joint dysfunctions, asthma,[7] chronic sinus infections, vertigo,[8] chronic fatigue syndrome, gastroenteritis, dyslexia, depression, etc..[2]

Harrison RE et al reviewed the records of 157 patients treated with Craniosacral Therapy (CST). They found that 74% of patients reported a valuable improvement in their presenting problem. Outcome by diagnostic groups suggested that CST is particularly effective for patients with headaches and migraine, neck and back pain, anxiety and depression. 70% of patients on medication decreased or discontinued it, and patients' average general practitioner consultation rate fell by 60% in the 6 months following treatment. [9]

CRITICISMS

There are extensive criticisms of craniosacral therapy from the scientific and health care professionals as to the validity and efficacy of Cranial Type techniques and principles. The following criticisms are cited against this form of therapy:

1. Lack of evidence for the existence of "cranial bone movement": Scientific evidence does not support the theories for cranial bone movement. Researches documented in the literature have shown that partial fusion between cranial bones occurs during growth and development. [10,13]

2. Lack of evidence for the existence of the "cranial rhythm": While evidence exists for cerebrospinal fluid pulsation, but it may be also be hypothesized that the cranial rhythm is caused by the functioning of the cardiovascular system and not by the workings of the craniosacral system.[13]

3. Lack of evidence linking "cranial rhythm" to disease: Research to date to support the link between the "cranial rhythm" and general health is cited as "low grade" and "unacceptable to meet scientific measures".

4. Lack of evidence that "cranial rhythm" is detectable by practitioners: Operator interreliability has been very poor in studies that have been done. [11,12]

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