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Original article

STUDY ON THE EFFICIENCY OF CRANIOSACRAL THERAPY IN PATIENTS WITH CERVICAL PAIN

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Abstract

Aim. We found that using kinetic strategies combined with CranioSacral therapy techniques, the results are obvious in combating pain for a longer period of time, better joint mobility, more restful sleep and better performance in daily activities and thus an improvement in patients quality of life.

Methods. We used assessment methods based on which we can determine the effectiveness of our programs, tests to determine the degree of impairment of cervical spine mobility (Hettinger test), pain assessment test (Wong Baker faces scale), questionnaires to assess both stress levels (Cohen-Williamson) as well as the quality of life.

Results. The results we obtained show a reduction of pain, obtaining a higher degree of mobility in the cervical spine, an improvement in the well-being of patients and the quality of sleep, reduction of stress, anxiety and depression. Pain relief, decreased muscle tension, the experience of deep relaxation and release were also reported by the interviewed patients treated with physiotherapy and CranioSacral therapy during the six week treatment.

Conclusions. The results of the tests applied one month after the end of the treatment show a pain percentage of 50%, mobility of 63%, stress level of 58% and quality of life of 66%, which shows that the results are maintained quite well even a month after the end of treatment.

Keywords: quality of life, cranioSacral therapy, cervical pain.

Introduction

CranioSacral Therapy is a manual, gentle method of evaluating and treating the functioning of the CranioSacral system, a system consisting of membranes and cerebrospinal fluid that surrounds and protects the brain and spinal cord. Due to the fact that many children, young people, women, adults, seniors showed up at our office with numerous and uncomfortable back pain in general, the cervical area in particular, we considered that a detailed research is needed on this topic up to date. The high prevalence of neck pain and related costs in terms of health care spending and lost productivity is causing an increasing economic burden to contemporary society. Physical therapy can have a massive impact on the overall burden of neck pain. By applying good examination skills, effective clinical reasoning and proper selection of interventions, the impact of neck pain on anyone can be significantly reduced. In addition, the high tendency to chronic neck pain can be reduced with effective management.

Cervical pain can be caused by a certain repeated activity or a trauma to the neck or by another medical condition. Most cases of neck pain are caused by activities that involve repeated and prolonged movements of the neck muscles, ligaments and tendons, bones and joints.

Blanpied et al. 2017, worked to perform a systematic research for concepts associated with neck pain in articles published from 2007 to August 2016 related to

classification, examination, and intervention strategies for neck pain. Pain and associated conditions of the neck is a common disease. According to their study it is estimated that 22% to 70% of the population will have neck pain some time in their lives and it has been suggested that the incidence of neck pain is increasing. 10% to 20% of the population reports neck problems, 54% of individuals having experienced neck pain within the last 6 months. Prevalence of neck pain increases with age and is most common in women around 50 years old (Blanpied et al., 2017)

According to Binder, 2007, most patients have a simple neck pain where the cause is a bad posture or mechanical basis. Depression, anxiety, poor posture, neck strain, and sporting or occupational activities can also be aetiological factors that can trigger neck pain. Also whiplash injury can cause a simple neck pain where no neurological deficit or a bony injury is present. Both mechanical and degenerative factors are present in chronic cervical pain (Binder, 2007).

CranioSacral therapy is a relatively recent technique introduced into the recovery system abroad. I was fortunate to take part in several professional training courses on this subject in Austria, at the Drumbl Akademie für Aus- und Weiterbildung GmbH, where I was able to deepen this wonderful therapy over several years. Since 2015, I have been practicing CranioSacral therapy, both in Austria where I worked as a physiotherapist for five years, and in the office in Oradea with good results CranioSacral Therapy is a manual,

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gentle method of evaluation and treatment the functioning of the CranioSacral system, a system consisting of membranes and cerebrospinal fluid that surrounds and protects the brain and spinal cord. CranioSacral therapy may have a positive impact on the whole body, on every system of the body and can facilitate the body ability to self-heal. The CranioSacral system is closely related to the whole body: a disorder, an imbalance can affect organs, muscles and bones but also the nervous system, circulatory system or hormonal system. Through CranioSacral therapy these imbalances can be palpated, felt and through very gentle manipulations on the skull or on the sacred bone they can be rectified and as a result the central nervous system returns to its optimal performance (Upledger et al., 2008).

In the human body, in addition to the respiratory and cardiovascular rhythm, there is a third very important rhythm called the CranioSacral rhythm or the CranioSacral breathing. This is a deep rhythm and can be felt throughout the whole body but it can differ in frequency in different parts of the body. It has a frequency of 10 cycles per minute and consists of two phases:

- the first phase is a pressure phase that leads to the expansion of the skull;
- the second phase, the pressure is reduced and the skull returns to its original shape and the CranioSacral system relaxes.

Through this CranioSacral breathing, the bones of the skull move almost imperceptibly through their sutures. This rhythm is like a wavy movement, of filling and emptying, of expansion and narrowing. In places where this rhythm is not felt, very fine correction impulses can be applied by certain gentle manual techniques. Any disease or energy blockage causes a deviant pattern from the normal rhythm of the CranioSacral rhythm. Restoring this rhythm to its normal parameters is the role of CranioSacral Therapy (Upledger, 1995).

Although it is not necessary to manifest at each treatment, another phenomenon, called SomatoEmotional Release may occur as a result of recalling traumatic and / or emotional moments. This is a normal phenomenon that helps the body reverse the dysfunction and restores the optimal level of mobility, helps to free the mind and body from the residual effects of trauma. During the process of SomatoEmotional Release the activity of the craniosacral system stops suddenly and the patient may experience different states: laughter, crying, tingling, sweating or even pain. When it is actually achieved, SomatoEmotional Release can radically change the lives of the people and it can give them a chance to look objectively at what they do and how they can change their lives for the better (Upledger, 2018).

CranioSacral therapy is increasingly used as a means of prevention, as it complements the body's natural healing system. It has the ability to increase disease resistance and is effective in a wide variety of dysfunctions and medical problems associated with pain

such as: scoliosis, motor coordination deficiencies, headache, migraines, neck pain and back pain; temporomandibular joint syndrome; orthopedic problems, postoperative dysfunctions, spinal cord injuries; contusions and traumatic brain injuries; neurovascular or immune disorders, infantile disorders, disorders of the central nervous system, chronic fatigue, emotional difficulties, post traumatic stress, Alzheimer's and dementia.

The duration of a CranioSacral therapy session can vary between 15 minutes to babies, up to 30 minutes to children, an hour, or even an hour and a half to adults. During therapy the patient is lying on his back, side or belly on the treatment table, dressed in light clothes and the therapist will have his palms, along the body, chest or skull and will support the head, spine or the sacred bone to help eliminate accumulated tension in the body. The environment in which the CranioSacral therapy sessions take place should be a comfortable, quiet, pleasant one without interruptions during the therapy. It is important for both the therapist and the patient, so as to facilitate peace and relaxation. This can relieve pain, symptoms associated with anxiety, panic attacks or depression. The CranioSacral therapy techniques performed by the therapist are light and gentle, give a feeling of well-being and peace to the patient. During treatment the patient can focus on breathing to achieve a state of relaxation by stimulating the activity of the parasympathetic nervous system.

Specific procedures for CranioSacral therapy that therapists use include compression-decompression of the temporo-mandibular joint, decompression of the mandibular fascia, facial bone strain, compression-decompression of the sphenobasilar joint, parietal lifting, frontal lifting, diaphragm belt release, scapular girdle decompression of the sacrum, compression-decompression of the iliosacral joint and iliac crests. Still points are quiet intervals between manipulations techniques in which the CranioSacral rhythm stops, which happens every three to four minutes and lasts for one minute, during which time the patient rests quietly (Upledger et al., 2008).

In CranioSacral therapy are used indirect techniques and direct techniques. Indirect techniques compare the amplitude of flexion and extension of the CranioSacral rhythm. The therapist observes and accompanies the movements of the CranioSacral rhythm that he feels. He will feel at some point that something in the structure of the joint, tissue or muscle fascia will resist the movement but after a few moments of silence, it will give in and the therapist will be able to further amplify the movement felt. Then the movement stops and the tissue structure relax. The indirect technique is always used on the bones of the skull and is the gentlest method applied in CranioSacral therapy.

In direct techniques the process is the same but the therapist no longer waits for the moment of tissue release and amplifies the movement to the next level, this is the moment where most of the people will relax completely, which helps range of motion (Cohen, 1995).

Researchers in Iceland have studied the effect of craniosacral therapy on patients with headaches / migraines. The participants with a diagnosis of migraine headaches having 2 or more episodes of pain in the month prior study were recruited. Participants aged 18 to 50 years were randomly assigned to groups, A or B, and were allowed to continue their routine activities lives and medications they were taking. No other form of alternative treatment were allowed. Craniosacral therapy was applied and the result showed a significant decrease in pain intensity immediately after the therapy and also 4 weeks later. Although the study was limited by the small number of participants and the lack of a control group, was selected for review because it was a good pilot project (King, 2016).

Arnadottir and Sigurdardottir, 2013, present in their study what is the effect of craniosacral therapy in reducing migraine symptoms. Patients aged between 20 and 50 years were divided into two equal groups A and B, received 6 sessions of craniosacral therapy over four weeks, answering 4 times to the HIT 6 questionnaire. The first group completed the questionnaire before therapy, and the second group after therapy. After a month, there was a significant decrease in migraines for those who benefited from craniosacral therapy (Arnadottir and Sigurdardottir, 2013).

A study conducted on the effects of craniosacral therapy reports the effects of therapy in fibromyalgia and more precisely on depression, anxiety and last but not least on the quality of life of those with painful fibromyalgia. A clinical study was conducted on a number of 84 patients diagnosed with this pathology and were assigned to an intervention group where craniosacral therapy and a placebo group were applied. The therapy was applied for 25 weeks, and the results were set at 10 weeks, 6 months and one year after treatment. Sleep quality, anxiety, pain and quality of life were improved in the intervention group compared to the placebo group. In conclusion, the approach of CranioSacral therapy in the case of patients with fibromyalgia contributes to the improvement of the quality of life (Matarán-Peñarrocha et al., 2011)

Harrison and Page, published in the Journal of Alternative and Complimentary Medicine in the United States a descriptive study that demonstrated the effectiveness of CranioSacral therapy in general. The treatment was applied to 157 people with various medical problems headaches, migraines, sore throat or back pain, anxiety and depression (Harrison, Page, 2011)

Domarańczyk and Truszczyńska-Baszak, 2020, demonstrated in their study that the CranioSacral therapy can reduce tension-type headache. This type of pain is often referred to as stress-related or psychogenic headaches and correspond with feeling unwell, and with depression or anxiety. The study involved 30 adult patients, the sessions were performed four times within a two-week period and the treatment used the Upledger's 10-step protocol. After the treatment, pain

intensity reduced to a statistically significant level, that shows that Craniosacral therapy is an efficient pain reduction method in patients with tension-type headaches (Domarańczyk, Truszczyńska-Baszak, 2020).

In this paper we aim to present important aspects of the holistic approach to treatment of people with neck pain. In this context, our proposal is to present the results from our study on the prevention and treatment of neck pain, thus improving the quality of life of patients with neck pain. Establishing complex means by applying kinetic programs, techniques specific to CranioSacral therapy and using associated complementary therapies (aromatherapy, music therapy) and establishing the evolution of patients quality of life by applying specific tests were our priority.

Our main goal of research is to reduce pain and increase patient's quality of life. The present research is based on unique elements, not valued until now in the Romanian literature: it detects the possibilities of capitalizing on the improvement of the treatment applied to people with neck pain.

Aim

We found that using kinetic strategies combined with CranioSacral therapy techniques, the results are obvious in combating pain for a longer period of time, better joint mobility, more restful sleep and better performance in daily activities and thus an improvement in patients quality of life. That is why we decided to conduct a research to demonstrate this fact.

Methods

We used assessment methods based on which we can determine the effectiveness of our programs, tests to determine the degree of impairment of cervical spine mobility (Hettinger test), pain assessment test (Wong Baker faces scale), questionnaires to assess both stress levels (Cohen-Williamson) as well as the quality of life. Hettinger test

This test includes a group of 10 exercises of which the first 5 test joint mobility, flexibility, balance and coordination, and the following, muscular strength and endurance. The performance of each exercise is quantified on the basis of a score, and then the general assessment is made by adding the scores obtained in each exercise.

Wong Baker faces scales

It is an important tool used by many specialists to determine the intensity of pain. It has several levels of pain intensity:

- 0 - the patient does not present any pain;
- 1-3 - the patient presents with a slight pain;
- 4-6 - the patient presents moderate pain;
- 7-10 - the patient presents severe pain.

The patient tested with this type of scale should choose a face, corresponding to the level of pain felt at the time of testing and depending on the patient's choice, the specialist can assess the intensity of the pain felt by the patient.



Figure 1. Wong Baker faces scales

Cohen-Williamson questionnaire

The 14 questions from this questionnaire are general in nature and relatively free of content they are specific to any population group, the items are easy to understand and the response alternatives are simple. This questionnaire explores the subjective feeling of stress, thoughts and feelings felt by each patient during the last month, and can be used to determine if the stress is a factor in a disease.

Quality of life questionnaire (adapted from: L. Moret, J Chwalow, C. Badudoin-Balleur)

This questionnaire contains 12 questions that assess the quality of life of patients. Quality of life is a multifactorial concept that includes entanglement of:

- feelings of satisfaction in everyday life in relationships with others, in professional activity;
- the ability to appreciate ("taste") pleasure;
- to know that you are yourself among others;
- to be responsible for your actions, memories and proposed projects.

Given that I have been working with CranioSacral therapy for many years and that we have applied tests and questionnaires to all patients who came to our office in the last 5 years, we have used the results from 50 people, 35 women and 15 men of different ages with cervical pain due to various causes. We applied both specific kinetic programs and CranioSacral therapy techniques to the patients included in this study. The duration of the applied treatment was 6 weeks, each patient benefited from 3 sessions of physiotherapy and CranioSacral therapy per week. We took into account

the stage in which each patient was at the time of the intervention as well as the age and physical and mental condition on the day of treatment. We approached each patient holistically, the treatment was performed in a pleasant, comfortable environment accompanied by music therapy and aromatherapy depending on the physical and mental state of the patient. This was very important for us because it largely contributes to obtaining positive results both physically and mentally. That is why we had always chosen together with each patient, at each treatment session, the essential oil that we have used in the aromatherapy lamp and the relaxing music, depending on his mental state.

We applied the questionnaires to all patients who gave their written consent that they agreed to participate to this research at the beginning of treatment (week 1), during (week 3) and at the end of treatment (week 6) and one month after its end (week 10).

Results

The results we obtained show a reduction of pain, obtaining a higher degree of mobility in the cervical spine, an improvement in the well-being of patients and the quality of sleep, reduction of stress, anxiety and depression. Pain relief, decreased muscle tension, the experience of deep relaxation and release were also reported by the interviewed patients treated with physiotherapy and CranioSacral therapy during the six week treatment. The data recording is to be presented in the following figures corresponding to the evolution of the tests to highlight the indices and parameters obtained from the tests performed on the patients subjected to the experiment.

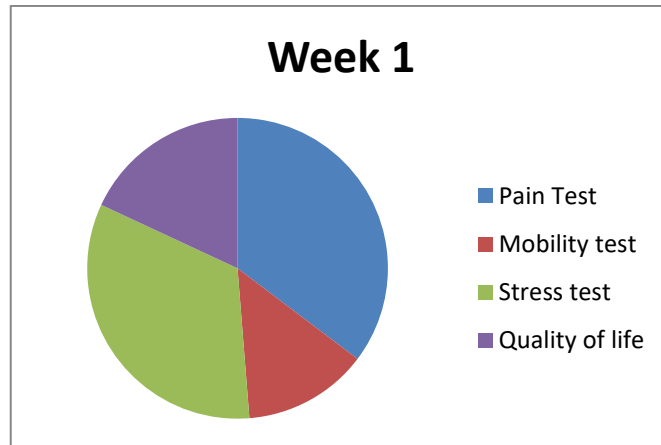


Figure 2. Test Results from week 1

The results of the tests applied at the beginning of the treatment, week 1, show a pain percentage of 84%,

mobility of 32%, stress level of 79% and level of quality of life of 43%.

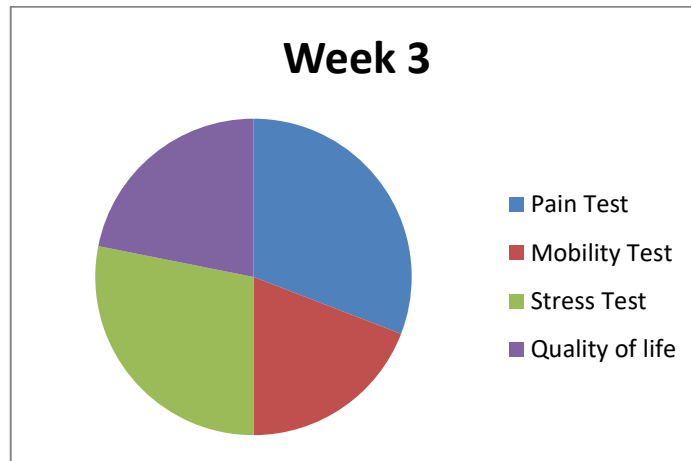


Figure 3. Test results from week 3

The results of the tests applied after 3 weeks of treatment, show a pain percentage of 79%, mobility of

49%, stress level of 72% and level of quality of life of 56%.

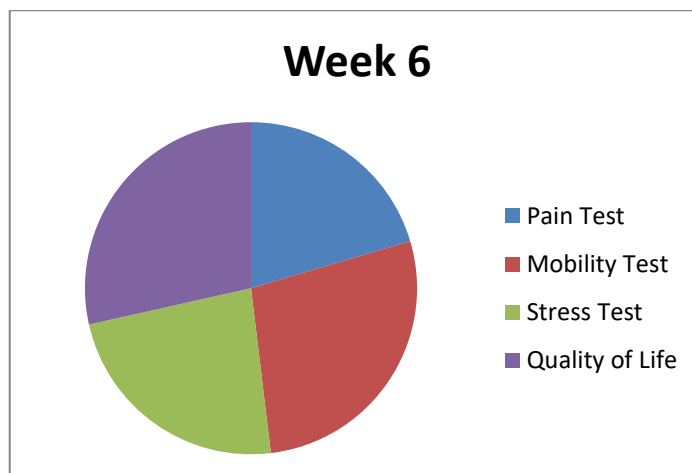


Figure 4. Test results from week 6

The results of the tests applied at the end of the treatment, week 6, show a pain percentage of 48%,

mobility of 65%, stress level of 55% and level of quality of life of 67%.

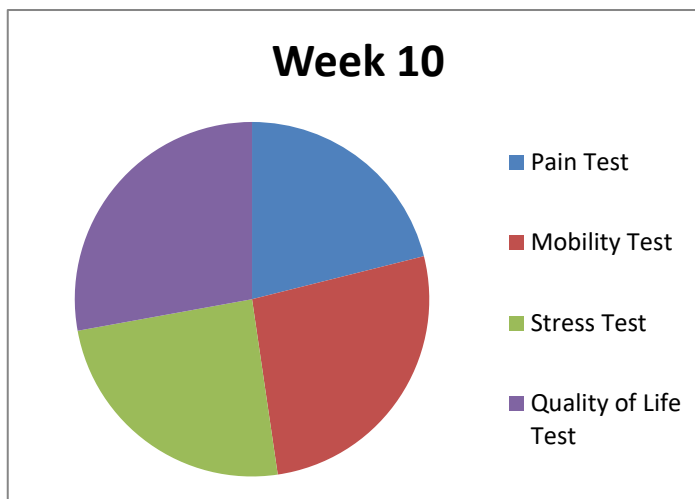


Figure 5. Test results from 1 month after treatment

The results of the tests applied one month after the end of treatment show a pain percentage of 50%, mobility of 63%, stress level of 58% and level of quality of life of 66%.

Discussion Cervical pain is the most common type of pain, after headache and low back pain and is a common condition that causes substantial disability and is also on the rise worldwide. According to Physio-Pedia.com, 2020 of all 291 conditions studied in the 2010 Global Burden of Disease study, neck pain ranked 4th in terms of disability, as measured by YLD (Years Lived with Disability) and ranked 21 as regards the general burden. In addition, the study reported that the incidence of neck pain increased by 21% between 2005 and 2015. CranioSacraltherapy is increasingly used as a means of prevention because it complements the body's natural healing system. It has the ability to increase disease resistance and is effective in a wide variety of dysfunctions and medical problems associated with pain, stress, anxiety and also depression.

Conclusions These results obtained after 6 weeks of treatment with kinetic programs and CranioSacral therapy techniques, demonstrate that the pain was reduced from 84% to 48%, the mobility of the cervical spine was increased from 32% to 65%, stress level was reduced from 79% to 55% and the quality of life was improved from 43% to 67%. The results of the tests applied one month after the end of the treatment show a pain percentage of 50%, mobility of 63%, stress level of 58% and quality of life of 66%, which shows that the results are maintained quite well even a month after the end of treatment. Comparative index of test results from week 1 to week 10 are shown in Figure 5, that demonstrates the improving in quality of life of the patients. These results validate our hypothesis that CranioSacral therapy is effective, useful and necessary in completing recovery treatment.

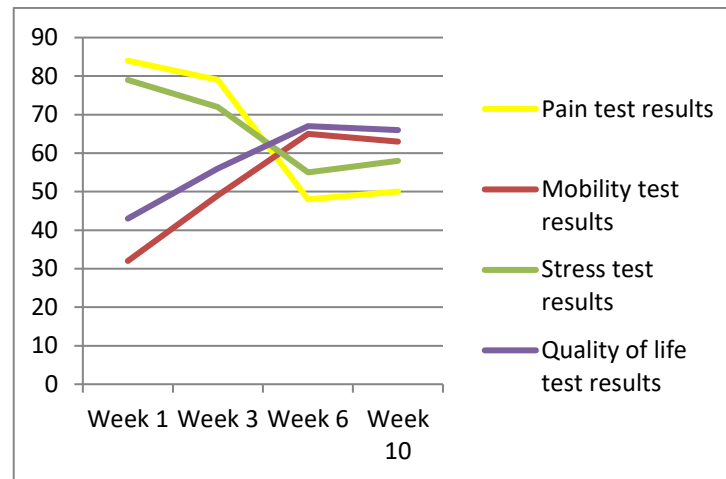


Figure 6. Comparative index of test results

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