



Influence of a So-called Spheno-basillary Symphysis Compression Technique in the Management of a Burnout Person

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Abstract

Wave of suicides at France TELECOM between 2008 and 2009, the law against harassment at work, stress at work, psychosocial risks, depression, burnout... so many themes that are often talked about in our media. Although lagging behind other European countries, the French government is beginning to consider the risks associated with work and thus more easily recognize certain psychological pathologies such as occupational illnesses and in particular burnout.

The objectives of this study are to take stock of this phenomenon of burnout and to show the usefulness of osteopathy in its management.

Keywords: Psychiatrist; Digestive Disorders

Introduction

The burnout and manifestations

Historical

The concept of professional burnout was introduced by French psychiatrist Claude Veil in 1959 in an article entitled "States of exhaustion". He uses the image of a bank account to talk about his concept. A bank account funded by checks allows its owner to better adapt, with reference to homeostasis in the human body, while an account where there would only be expenses, would induce a mismatch, and make the least extremely complicated request to manage due to resource depletion [1].

Across the Atlantic, in the seventies, the psychoanalyst Herbert FREUDENBERGER [2] used the term Professional Burnout for the first time, speaking of what he observed with volunteers helping drug addicts in the New York state. He says "people are sometimes victims of fires [...] under the tension produced by life in our comp-

lex world, their internal resources come to be consumed as if by the action of flames, leaving only an immense void to inside, even if the outer envelope seems more or less intact" [3].

But it is the work of Maslach [4] in the eighties, which serves as a reference [5,6].

- **Physical and/or mental exhaustion:** Represents the first dimension and the most central is emotional, mental and physical exhaustion
- **Depersonalization:** Cynicism about work is the second dimension, the individual adopts less and less suitable behavior
- Lack of personal achievement

Symptomatology/diagnoses

Making a diagnosis is complicated today, although much work has been done [7-10]. There is a major problem with burnout cases

which is to define a threshold between normal and pathological. The following clinical signs are the most observed but are in no way pathognomonic of this condition:

Clinical aspect

- Great asthenia (physical, sexual, psychological)
- Sleep disorders
- Somatization, frequent physical manifestations such as muscle tension, spinal pain, sometimes even weight loss or gain, headaches, nausea, dizziness, digestive disorders may be observed
- The individual can withdraw into himself with an inhibition of social life
- Mood disorders such as apathy, violence, addictive behavior
- This can be felt at the cognitive level, burnout has an impact on the information capacities of the individual: problem of concentration, complicated decision-making, forgetfulness.

Biological aspect

Since this is chronic stress, we can therefore focus on the hypothalamic-pituitary-adrenergic axis to better understand the symptoms cited above that are not specific to burnout [11].

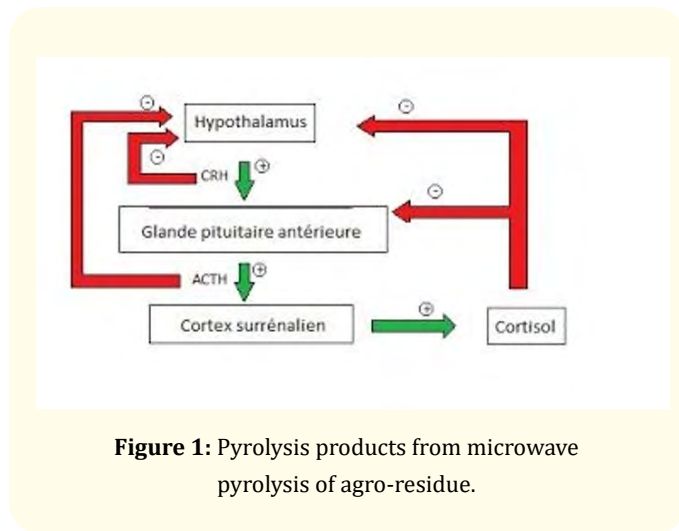


Figure 1: Pyrolysis products from microwave pyrolysis of agro-residue.

There is no specific marker for this syndrome. However, work carried out by Canadian research teams tends to show that the level of salivary cortisol could be a good diagnostic tool in the future and make it possible to avoid the confusion between depression

and burnout. Indeed, a high cortisol level would rather reveal a depression, and conversely a low cortisol level would lead to burnout. (the individual depletes his resources, transition from hyperfunctioning to hypofunctioning adrenal glands) [12-14].

Treatments, prevention [8,15,16]

Several therapeutic possibilities exist

- Modifying working conditions causes too much stress so that the individual can readjust.
- Improve communication to allow the individual to share their difficulties, get out of their isolation
- The use of psychotropic drugs.
- The use of alternative medicines such as shiatsu, sophrology, or call on coaches, for better management
- Communication within the various professions is very important, to inform and train workers and thus prevent its occurrence.

Osteopathy

Osteopathy is a "holistic medicine" developed by Andrew Taylor STILL (1828-1917). It has continued to evolve over the years. And one of the greatest advances in the field of cranial osteopathy is reviewed by WG Sutherland.

He showed that stress exerted on different parts of the skull can create problems. And in particular between 1934 and 1939 he treated young children with various pathologies such as cerebral palsy, hydrocephalus, coordination disorders, hyperactivity... so that many were able to lead a normal life [17].

Osteopathy considers the individual as a whole, namely the body, mind and soul. It can be used in the prevention, treatment of stress. Indeed, much research has been done in this direction [18].

Michel DUPUIS DO memory 1991 showed that osteopathic cranial manipulations had an influence on endocrine secretion. And in particular a technique called compression of the 4th ventricle would decrease the production of cortisol [19].

The skull is the seat of parasympathetic activity, and being under stress the individual tends to be more sympathetic. We must therefore rebalance everything [20].

The spheno-basilar symphysis (SSB): it is formed between the sphenoid bone and the occiput. It is the central area at the level of the midline of the skull. The peripheral cranial bones must adapt, so that in the teaching of osteopathy we describe a mobility.

SSB does not ossify until between the ages of 20 and 25, and thereafter it leaves room for great elasticity [21].

The technique used in this study is a technique known as decompression of the spheno-basilar symphysis, opposite the pituitary gland (conductor on endocrine system.) At the anatomical level. A loss of elasticity, "compression" in osteopathy, creates many disorders such as headaches and disorders of the hormonal system.

Objectives and issues

This study aims to show the place of osteopathy in the management of burnout.

Knowing that this syndrome is a self-sustaining vicious circle of working conditions creating chronic stress.

We can therefore ask ourselves: how can a cranial technique for decompression of SSB have an influence on the various personal, professional and emotional dimensions of a subject in the burnout stage?

Materials and Methods

Recruitment-material

- The participants were recruited from a large distribution chain, along with two people working as operating room nurses.
- Number of participants: 10
- The ten participants will be separated into two groups of five, which we will call group 1 and group 2. In group 1 we will test the technique of osteopathy and in group 2 only a simple apposition of the hands will be performed.
- For appointments, the subject was invited to complete a Copenhagen Burnout Inventory questionnaire which explores three dimensions of burnout: professional burnout, personal burnout and relational burnout [22].
- It was invented in Denmark in 2005, by Kristensen, and validated, it is both a good diagnostic and prevention tool.
- This test has three sets of questions.

- Each answer gives a number of points and it is then necessary to add the points obtained to know the risks.

Professional dimension: less than 15 = no worries, between 15 and 19 be vigilant, greater than 19 = your company's professional organization exhausts you both physically and mentally.

Relational dimension: less than 13 = no need to worry, between 13 and 17 = be vigilant, greater than 17 = you are exhausted.

Personal dimension: less than 13 = no need to worry, between 13 and 17 = be vigilant, greater than 17 = you are physically/mentally exhausted.

Inclusion criteria

- Man or woman of 18 years minimum
- Be in a state of professional exhaustion
- Person who works

Exclusion criteria

- All exclusions from osteopathic treatment
- Infectious pathologies
- Recent head traumas (less than 3 weeks)
- Minors
- Taking antidepressants
- Recent fractures, below the time limit for consolidation.

Osteopathic technique used

The cranial technique known as the decompression of the spheno-basilar symphysis (SSB) is used here.

The approach to the arch is described by Magoun, the thumbs intertwined above the arch without touching it, the other fingers are spread out so that the index fingers on the lateral surface of the large wings of the sphenoid in the fronto- region sphenoidal, the middle fingers are placed just in front of the ears, the directories behind the ears and the little fingers on the occiput scale [23].

During the session, first a brief history is taken, the subject calculates his score on the Copenhagen Burnout Inventory test, then is invited to lie down on his back, to take deep breaths in order to better relax.

Group 1

The therapist stands at the head of the patient, stands with good support, elbows on the table, feet flat on the ground and comes to perform the SSB decompression technique.

He places his hands, performs a slight compression of the structures and then brings about a slow decompression according to the individual's tissue response.

The subject is then reviewed for three weeks (the time it takes for the body to process the information) [24] and recalculate his score.

Group 2

The therapist stands at the head of the patient, stands with good support, elbows resting on the table, foot flat on the ground, and places his hands on the participant's skull for a few minutes, not exceeding any pressure. Subsequently, as for group 1, the subject is asked to come back 3 weeks later to calculate his score.

Results

Before any treatment

	Patients	Professional dimension	Personal dimension	Relational dimension
Group 1	1	20	18	18
	2	18	15	15
	3	18	16	16
	4	19	16	16
	5	20	17	18
Group 2	6	19	16	18
	7	19	15	15
	8	18	16	15
	9	19	16	17
	10	19	16	16

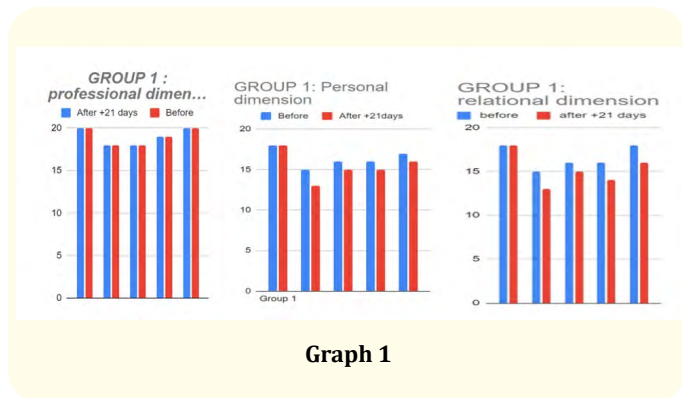
Table 1

After treatment +21 days

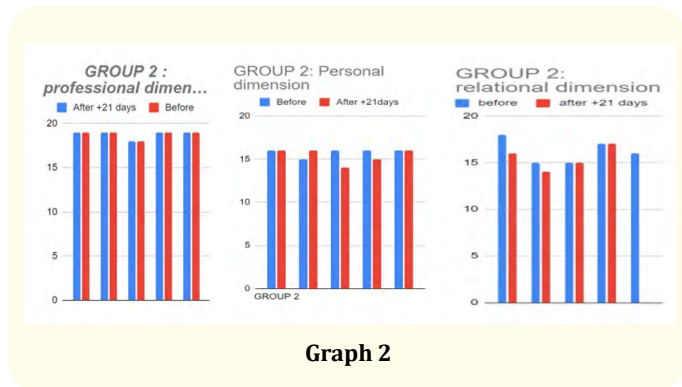
We can calculate the means of the three different dimensions and carry out the befor/after comparison on the 2 groups.

	Patients	Professional dimension	Personal dimension	Relational dimension
Group 1	1	20	18	18
	2	18	13	13
	3	18	15	15
	4	19	15	14
	5	20	16	16
Group 2	6	19	16	16
	7	19	14	14
	8	18	16	15
	9	19	15	17
	10	19	16	16

Table 2



Graph 1



Graph 2

These graphs show the results on both groups, before the technique and after the application of the technique/hand apposition 21 days after.

The results show no obvious differences, other than a slight decrease, especially in the personal dimension for group 1.

Discussion

Remember that the objective is to show the impact that the osteopathic skull could have on the care of a person at the stage of exhaustion.

For this study there were only ten patients, so we can only extrapolate our results.

There are biases, in fact the people chosen do not exercise the same professions, some working in mass distribution and others in the medical sector. But we know that the causes of burnout syndrome are multifactorial.

In addition, the study was carried out by one and the same person. Each osteopath has his own treatment methodology and his own approach to the subjects, it would be interesting to assess whether the relational aspect influences the reaction of the subjects. The contribution of a second osteopath would make it possible to better objectify the results by avoiding a possible placebo effect.

Burnout is recognized as a chronic "pathology" but the duration of the study being short, it must be considered as a pre-study whose results should be verified in the long term.

To further this study, an even more reliable measurement tool such as a Labtest (salivary cortisol test) could help to better see the effects of the technique on the subject's endocrine system.

In addition, osteopathy can not be reduced to a single technique applied to all subjects, it takes into account the whole of the patient, physical complaints are not the same for all. Everyone has their own life story.

Conclusion

Burnout syndrome appears to be a public health problem. Indeed, the number of burnouts has steadily increased over the past few years, anyone can be affected, and at any time in their life. And although many studies have been done its diagnosis remains complex. The real causes of this phenomenon are specific to each person, and to each profession, as are the consequences that it can have. Prevention and care must remain a priority.

This study shows that osteopathy does not have a detrimental effect on the management of patients with burnout. It even allows on a personal and emotional level an admittedly tiny improvement in view of the study carried out. However, we cannot conclude that a technique known as SSB decompression can have any influence on any of the dimensions of burnout.

And even if osteopathy sees the person as a whole, and makes the link between body and psyche, a multidisciplinary approach is necessary, to get the patient out of this hellish loop of burnout, and to prevent him from recurring. This multidisciplinary contribution must be adapted to each profession, and above all to each person, and respect "each person's story".

There are many solutions that can be provided to workers to improve their quality of life, and osteopathy is one of them. So that the presence of an osteopath in companies as prevention or treatment would be an option for reducing costs related to work stoppages?

Appendix

Physiology of stress.

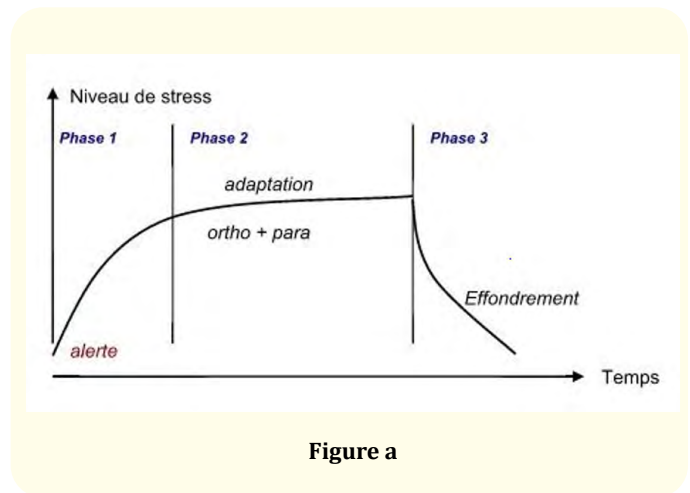


Figure a

Copenhagen burnout inventory (CBI) questionnaire

Personal exhaustion

- I'm tired: 0 never or almost never; 1 rarely; 2 sometimes; 3 often; 4 all the time
- I am physically exhausted: 0 never or almost never; 1 rarely; 2 sometimes; 3 often; 4 all the time

- I am emotionally exhausted: 0 never or almost never; 1 rarely; 2 sometimes; 3 often; 4 all the time
- I tell myself that I can't take it anymore: 0 never or almost never; 1 rarely; 2 sometimes; 3 often; 4 all the time
- I feel drained: 0 never or almost never; 1 rarely; 2 sometimes; 3 often; 4 all the time
- I feel weak and likely to get sick: 0 never or almost never; 1 rarely; 2 sometimes; 3 often; 4 all the time.

Burnout

- My job is emotionally exhausting to a degree: 0 very weak; 1 weak; 2 medium; 3 high; 4 very high
- My work exhausts me to a degree: 0 very weak; 1 weak; 2 medium; 3 high; 4 very high
- My job frustrates me to a degree: 0 very weak; 1 weak; 2 medium; 3 high; 4 very high
- When I get up, I already feel exhausted at the idea of a new day: 0 never or almost never; 1 rarely; 2 sometimes; 3 often; 4 all the time
- I feel drained at the end of the day: 0 never or almost never; 1 rarely; 2 sometimes; 3 often; 4 all the time every hour of work seems trying to me: 0 never or almost never; 1 rarely; 2 sometimes; 3 often; 4 all the time
- I lack energy in leisure activities with my family and friends: 0 never or almost never; 1 rarely; 2 sometimes; 3 often; 4 all the time.

Relational exhaustion

- Working with my clients-patients is difficult for me to a degree: 0 very weak; 1 weak; 2 medium; 3 high; 4 very high
- Working with my clients-patients is frustrating to a degree: 0 very low; 1 weak; 2 medium; 3 high; 4 very high considering what I give to my clients-patients, their feedback disappoints me to a degree: 0 very weak; 1 weak; 2 medium; 3 high; 4 very high
- Working with my clients tires me out: 0 never or almost never; 1 rarely; 2 sometimes; 3 often; 4 all the time.

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