

PHYSIOTHERAPY AND MANUAL THERAPIES IN STRESS AND ANXIETY**SOMARDOLEA (GUTOI) Maria-Alina^{1*}, SLĂVILĂ Mircea²**^{1,2}Ecological University, Faculty of Physical Therapy and Special Motricity, Bucharest, Romania

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Motto: “But the real secret to life long good health is actually the opposite: Let your body take care of you.” (PhD Deepak Chopra)**Abstract**

Human body is our vehicle in this life time and it is the one that, without us noticing, is creating the perfect environment for each day. He is taking care of us being alive and experiencing every day. Our heart beats, our eyes see, our lungs breathe even when we sleep or work. Our body has this amazing system that balances itself, as much as it can, when in stress or new environment.

Our brain processes 2000 bits data/second – as our conscious mind. Our body processes 4.000.000 bits data/second – as our unconscious mind.

The recent years, when high level of technology over flood our lives, a high percent of the population is experiencing a new, increasing level of stress and anxiety.

Using our brain mainly in activities that involved virtual experiences, virtual social networks and less physicality creates a huge unbalance between the conscious and unconscious, one that would result, in time, in high level of disconnection, stress, anxiety.

With the same influence is the work-related stress.

Romania is one of the countries in Europe with the highest work-related stress

- 62% of the working population fear losing their jobs.
- 43% are experiencing stress related to violent work environment.

In 2017, from January to May, the Dynamic HR and Learning Network conducted a study “National Stress” revealing the fact that 99,7 % of the Romanian employees suffers of burnout, stress, sadness or depression.

The study was conducted on 804 employees, with ages between 26-35 years old, working in HR or Sales department.

Manual therapies and physiotherapy are tools that reconnect body, mind and spirit. They help in reconnection of the conscious and unconscious mind through connecting the movements and sensitive responses of the body to the brain and mind.

Active bodies, people that use movement, walks in nature and choose to exercise, as a daily routine, experience a much lower level of stress or anxiety.

Through gentle manual therapies, like massage or cranio-sacral therapy, our body is assisted in reconnection to the whole communication system of our being. In therapy, the body can signal areas of stress or which need attention or healing and could release stress and tensions.

The results are seen in the health, immune system, in clarity of mind and in relaxed approach of daily life.

Physiotherapy allows the body to move as a whole structure, using all muscles and joints that in virtual reality living are completely ignored and in our daily work environment are forgotten.

In this, the results are seen as flexibility even in decision making, lighter breathing increasing the level of oxygen to allow the entire body to expand the communication and to adapt.

Keywords: body, manual therapy, physiotherapy, stress, anxiety

The Environment, The Technology and the Influence on our Health

“The evolution of science and the use of new understandings on the profoundness of nature, the physical environment, the cosmos and of the way we belong to this space, have been supporting human’s development on all levels (physical, mental, social, spiritual). Each stage of evolution, each scientific breakthrough, has brought improvements to the level of living, to the work space and to the way we travel, accelerating the travelling speed and decreasing, almost always, the travelling time” (Bays B., 2009).

Over the past 10 years, as in a science fiction movie from 1990, the technology has brought on a new level of communication which is faster, independent of distance and requires a minimum of physical movement. These leaps in technology are supported by science which is a part of this mirage, confirming human capacities to reposition, to adapt and transpose to new shapes.

“The scientific discoveries - which have come to confirm the understanding of the bodies at their vibrational level, the bodily transcendence and the unity of space with all matter, are also bringing new depths in the way we are able to interact with the environment and with the tools we are using. It is also due to science, and to the human capacity to assimilate information, that we assist to an exponential increase in the use of technology- both by adult and very young generations” (Bays B., Billet K., 2018).

A study led by the University of Texas and McCombs School of Business and conducted in Austin (2017) on almost 800 smartphone users, concluded that the mere presence of the telephone in close proximity reduces the capacity to concentrate. In their desire to remain focused enough time, the subjects were consuming mental energy in their attempt to not be distracted by the phone. The subjects were divided into three groups: some had the phone by their side, face-down on the desk, others kept it in their pocket and the last group had the phone in another room. All phones were on silent. The results showed that the ones with the phone farther away had a higher cognitive capacity than all the others, this proportionality being the same also in the other groups.

“We see a linear tendency which suggests that, the more visible the smartphone is, the more the cognitive abilities available to the subjects are reduced. The conscious mind does not think at the smartphone, but the process itself- of forcing oneself not to think of something, consumes part of one’s limited cognitive resources. It is draining the brain’s energy. It wasn’t the fact that the participants got distracted by the notifications received on their phones. It was the mere presence of the smartphone, which was enough to diminish their cognitive capacity.” (Professor Adrian Ward, McCombs School of Business, 2017).

“The studies show an increase at all ages in the levels of stress, depression, chronic illness, terminal disease. For all of these, science brings solutions through more and more innovative treatments and through studies that show the importance of physical exercise, grounding and socio-emotional balance in healing. What actually happens is that the level of information processed through the body and neglected by the selective attention which is involved in mental and virtual activities, is creating gaps between the needs of the physical body, the emotional states and the way daily activities are carried out” (Wanveer T., 2016).

Another factor, resulted from adapting to the rapidly evolving level of information, is conglomerating the employees within workspaces which can allow the shortest time possible for the assimilation of data and action results, in order to generate profit and reimburse the employees, as payment or benefits, all the energy they have invested.

Inside such workspaces, hosting 8 to 20 employees, most of the times, the only form of ventilation is the ventilation air system which allows only a filtration and recirculation of the air in the respective spaces. Rarely are they provided with the option of external ventilation for fresh air intake. Although all these seem to be built and implemented in order to facilitate a good living and good health, things are different from a global perspective.

By separating themselves in the online environment and living 8 to 10 hours per day in ventilated-air workspaces, with mostly artificial light and with very little physical activity, the individuals deprive themselves of elements that are naturally supporting their health.

Physical immobility and predominantly virtual relationing create a disconnection from the physical body, which has great influence on the emotional state. That capacity of the brain to process information is used in an environment that is not correlated to the adequate physical activity, while what the physical body processes ends up being ignored through emotional immobility.

„He who is everywhere is nowhere” (Seneca)

For these reasons, stress is accentuated to such an extent that it generates chemical imbalance, causing physical or mental disorders and allowing depression to set in.

Regaining inner force and balance and restoring the physical and mental structures may be accomplished through connecting (reconnecting) to the body, to the present moment, to the environment, through physical activities, breathing and food.

What happens inside the body and how can we support it?

“A person has an average of 8000 thoughts per day, out of which 90% repeat almost daily. The way we deal with these thoughts, the way we pay attention to them and how we react, mainly define the mental emotional and cognitive programs on which our life experience is ran” (Dispenza J., 2014).

Being in the present, here and now, attentive to your own actions, is an exercise that requires first of all a good connection to the physical and emotional bodies. Thoughts are the language of the brain and emotions are the language of the body. The way we think our daily interactions and the way we relate to passing thoughts that come as a memory of actions from a previous day define the emotional environment of the moment, respectively, they set the biochemistry of the body to the emotions, experiences and reactions which are associated to the context where those thoughts appeared.

An environment where we constantly keep the physical body separated from the state of awareness and in which the visual stimuli and interactions to others are carried out mostly through auditory and visual stimuli and much less through kinaesthetic ones, destabilizes first and foremost the relationship between the brain and the body. The messages become misleading and every component of the physical body relates more and more to the brain in the attempt to re-establish the natural connexion.

In situations of stress or anxiety, the human body suffers a series of modifications that over time could generate even chronic disorders (physical or mental). During the first stages of stress or anxiety, upon the request of the body which is reacting to stimuli, the brain will react by secreting stress hormones: adrenaline, norepinephrine and cortisol. In real situations, on short term, these hormones are the ones saving our life by adapting the body to the event. Within the environment described above, where most of the activity is static and the situation seen as dangerous is virtually created by the online environment, the body will react the same way, but the hormones will become the ones distressing the organism, not saving it. The cortisol may save edge situations, but when it is produced without real reasons, it can -from obvious motives- cause serious illness. Therefore, too much cortisol may lead to low immunity, increased blood pressure and high glycaemia, a reduced libido and serious digestion problems.

According to the Medical Centre from the University of Maryland USA, the severe stress and the anxiety may trigger skin rashes, eczemas. Anxiety doesn't only activate the obvious organs, such as the brain and heart, but it also affects the internal functions of the spleen and blood cells. In order for the oxygen to be better distributed in a body that seems to have been drained of blood due to stress, the spleen will release additional red and white blood cells. The blood flow will also increase with 300-400% during this process, in order to prepare the rest of the body for additional reactions when dealing with stress.

“When one feels anxious, the body contracts creating a tension in many muscle groups. Chronic stress and anxiety can exaggerate this tension, resulting in headaches, pain in the shoulders, throat pain and even migraines. People who find themselves in a constant state of stress present a higher risk of developing chronic muscle-bone system disorders” (Dragan I., 1989).

“In most manual therapies, the first contact with the body is the one defining also a first comeback and connection between the awareness and the subtle reactions of the body which come from the unconscious information. In this case, the role of the therapist is to facilitate the relaxation, the connecting and communicating state between the brain and the body, the emotional and mental, so that the bio-chemical flow in the body allows the rebounding to a present relationing with the self and the environment” (Upledger J.E., 2018).

Through therapies like Cranio Sacral therapy, the body is given back the capacity to release emotional tension flows accumulated even from the simplest accident or flu. Through the communication at the fascia level, the body finally receives the message to regenerate, balance and heal, and the brain has the chance to connect with the direct physical and emotional needs.

In situations of prolonged stress or anxiety, when a part of the body-be it even one single cell, remains stuck in a structure deformed by the emotional state, an inner state of trauma might be created. The stress excess

from the cell patterns can create a high biomechanical and biochemical effort that is unusual but chronic, even long after the trauma per se has finished. Over time, this may re-awaken a continuous stimulation of the stress response, causing a continuous chaos and alarming the autonomus nervous system.

Through our senses, we experience both what is within ourselves and outside of us. The vibrations of the traumatised cells can imprison our whole being. The tissues of the body are created out of a great diversity of cells oscillating at different frequencies. This forms an inter-relational matrix in every part of the body – each cell has an impact on the whole body. Generally, each event in the body has an effect upon the whole body. Therefore, the cells formed while in a state of stress and anxiety can cause unfavourable consequences to the entire body. These cells are like the beats of a time-keeper, the fluctuations of fear, terror or fearfulness vibrating without cessation in the whole being.

“Cranio Sacral therapy can help by making the optimization process of the cells easier, helping the body to change the shape of its cells through soft techniques that improve the natural ways of self-correction.

Massage is one of the therapeutic ways which help the body unplug the accumulated stress areas, through relaxation, by relieving tension and improving the blood flow from the level of the stagnant areas, thus allowing a regeneration and a reconnection to the healthy stimuli and oxygenating the body while giving healthy messages to the muscles again” (Marcu V., Dan M., 2006).

Besides its role in medical recovery, Physiotherapy, can be included in the therapies with good influence on the body- when in stress and anxiety, due to the principles of motion activation of the body in its basic forms. By restoring articular mobility following a trauma or simply by resetting the body's correct position, the Physiotherapy helps to reconfigure each patient's relationship with their own body.

In daily activities, a correct posture allows a good functioning of the entire organism, self-correction when in muscle tension (the posture is more difficult to uphold in a state of tension and muscle strain) and the engagement in stress relief movements.

Physiotherapy may also be used to improve the respiratory function, thus allowing a new flow of changes to take place in the organism. A correct posture and correct breathing will improve the oxygenation system, the intestinal transit and the nutrients take-in the organism needs. Basically, through well controlled physical exercise, mobility, correct posture and breathing, we render the organism vitality and the capacity to adapt to stress factors.

A vital organism with healthy functions and physical mobility will have the same mobility also at a mental level, actually offering functional support that generates emotional mental and physical balance.

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