A revolutionary Measure for the Health Care System

A Danish physician has obtained evidence for a groundbreaking measurement method, which challenges the traditional treatment of stress and heart diseases. The method shows how the resources of the individual human being may be activated and thus provides large cost savings for the Health Care System.

At the 16th of June and at auditorium 094 at University of Southern Denmark, a PHD defense was conducted, which may have revolutionary impact for many thousands of Danes and at the same time substantially relieve the Danish health care system. By just reading the title of the dissertation: “The association between Pressure Pain Sensitivity of the Chest bone and cardiovascular risk factors associated with persistent stress”, one gets hardly any clue of the revolutionary results that the dissertation reveals. But according to the conclusions, which are supported by prominent researchers and medical doctors and which are documented through 15 years of research, it describes a most simple method to manage heart problems and the rapidly increasing public disease: stress.

The studies behind the dissertation show, that persons with the help from a small measurement device are able to prevent and solve health problems themselves, which otherwise would demand long-term medication or possibly hospital stays. This “stressometer” – or Ull Meter, which is the official name of the device – is as simple and fast to use as a thermometer. It does not measure the body temperature, but the “fever” of the brain i.e. the strain on our nervous system.

The man behind the revolutionary method is Søren Ballegaard M.D. His year-long work with acupuncture, heart research and stress, has put him on track to reveal the large unreleased potentials, which are hidden in the self-healing resources of the individual human being.
An important connection
It all started back in 1983, when Ballegaard as a young physician worked together with the renowned heart professor Anders Tybjærg Hansen at the National Hospital of Denmark (i.e. Rigshospitalet). At that time Ballegaard had already gained interest in acupuncture and acupressure, including how pain and tension through pressure on the body surface could be relieved. In particular, amazing results by treating a young female heart patient convinced Ballegaard about the possibilities. This conviction was further strengthened after one year of researching the method in Japan.

What Ballegaard discovered, and which he now has scientific evidence for, may be explained in simple terms as follows: The brain works consciously and unconsciously. The unconscious brain – the autonomic nervous system – works 24 hours a day. It organizes all the functions of the body, including our mental, emotional, psychological, physical and social behavior. Its activities alternate between being tense and being relaxed – just like a mechanical spring, which can be either tight or loose. Stress is also activated and controlled by the autonomic nervous system. But stress can both be constructive and destructive. Stress is constructive, when the body releases stress hormones such as adrenaline for demanding performances, and destructive, when the resilience of the brain is reduced, because it is challenged too much for a too long period.

The studies have shown, that a direct connection between the chest bone, the heart and the unconscious nervous system exists, and that the “temperature” of the brain – or resilience – can be measured on the chest bone. This resulted in development of the Ull Meter. The measurement is carried out by holding the instrument for short while on the chest bone, and it shows a number, which at rest must be below 45. If it is above 60, the warning signs start to show up.

According to Ballegaard, the Ull Meter may be compared to the situation, where the diabetes patients measure their blood sugar at home, or even more simple, like brushing your teeth. It sounds almost too good and too simple to be true. And the reality mirrors this, since Ballegaard during many years has had to fight hard against the general both public and professional skepticism towards acupuncture and complementary interventions.

Therefore, the challenge has been to provide the scientific evidence. This has gradually accumulated through a long process since the turn of the century.

It started by a series of pilot studies, in which 160 selected heart disease patients were followed for three years to examine how they reacted to the intervention. Among others, the aim was to study the connection between stress and heart disease.

The results were notable: Among these patients, the number of in-hospital days was reduced by 90 %, the number of hospital outpatient clinic visits was reduced by 88 %, the number of visits to the general practitioner was reduced by 76 %, expenses for heart disease
medication was reduced by 78 %, and among the 103 candidates for invasive procedures like bypass surgery and balloon angioplasty, this was cancelled for 84 patients (82 %).

If these possibilities can stand a scientific examination, the perspectives are great, since nearly 460.000 Danes suffer from heart disease – an increase of 15 % during the last 10 years. Two thirds of all citizens above 65 years develop heart disease, and the treatment of heart disease patients costs annually roughly around 10 billion Danish Crowns (i.e. 1.500.000 billion Euro).

Furthermore, 300.000 Danes have the diagnose stress. The research conducted during the subsequent several years has completed the scientific examination and documented, that the treatment by the Ull Meter reduces stress and as such also the stress load of the heart.

In addition, the idea of brain resilience measurement raised the question if and to what extent the method can be applied by people doing peak performance, such as sport people, and to examine if improvement of the brain resilience creating constructive stress enhanced the performance. Being an enthusiastic sailor, Ballegaard had the opportunity to test the method together with the Danish sailors at the Olympic Games in Beijing in 2008. This was conducted in close collaboration with their coach, the former Olympic Gold Medal winner Jesper Bank.

Søren Ballegaard came along to China and treated the sailors three times daily, and the results turned out to be very clear. After the treatment the sailors demonstrated far better and more stable results. Although this cannot serve as a scientific documentation, the group shared the opinion that the treatment had had a positive impact on the results of the sailors. This interpretation was confirmed in the subsequent randomized studies.

Scientific backup
The physicians and researchers that participated in this phase, includes a number of notable experts. They included among others, Åse Maria Hansen, Professor DmSci at the Institute of Public Health, Copenhagen University; Professor DmSci Werner Trojaborg, Columbia University, New York, USA; Jørgen Nyboe, chief statistician, The National Hospital of Denmark, Peer Schousen, Senior Registrar, Department of Surgery Hørsholm Hospital, Chief Physician Christen Axelsson, Department of Breast Cancer Surgery, Herlev University Hospital. They ascertained that the method is credible and the effect is genuine.

But even if the results appeared convincing, the randomized trials were still missing, and had to be conducted under very strict conditions. This meant that the results needed to be tested once more. This implied that new leading expects evaluated the method for a final “acid test”.

Sustainia | Bredgade 34, 1. floor, 1260 Copenhagen K, Denmark | +45 33 70 71 71 | sustainia@sustainia.me
This work was put in the hands of a group including Per Bech, professor of psychiatry, DmSc, North Seeland Hospital and Copenhagen University; Åke Hjalmarson, professor of cardiology, DmSc Sahlgrenska Hospital, Goteborg University, Sweden; Jens Faber, professor of endocrinology, DmSc, Herlev Hospital and Copenhagen University; Finn Gyntelberg, professor of occupational medicine, DmSc, The National Research Institute of the Working Environment; and Benny Karpatschof, Associate professor, DmSc, Institute of psychology, Copenhagen University. The latter three were engaged in the initial studies as well.

The group confirmed the pilot studies. Søren Ballegaard had apparently developed a method, which may revolutionize the treatment of stress and heart disease. Hereafter, the ambition was to include the result in PHD dissertation, and thus test the theories of Ballegaard through a scientific academical thesis. This required a further independent evaluation and an appointment of a supervisor.

The first evaluation was conducted by one of the country’s leading nerve biologists, Professor Albert Gjedde, Copenhagen University. In an endorsement declaration January 2016 he ascertained, that a notable association between the unconscious nervous system and the results obtained by the Ull Meter existed. It had an impact on blood pressure, cholesterol concentration in the blood as well as other factors, which were controlled by the unconscious nervous system. Altogether, providing supplementary evidence supporting that the method worked according to the intention.

**The final test**

Now the road was paved for the final PHD thesis. Professor PHD Jan Hartvigsen, University of Southern Denmark became the supervisor, as he after a thorough evaluation of all the past results, found that the work of Ballegaard met the requirements for a PHD study.

The thesis was approved and defended the 16th of June in Odense. Thus, Søren Ballegaard has now obtained the palpable proof that years with efforts towards finding a simple and effective method to prevent and treat stress has received the scientific blue print. As the description of the process shows, the method has been subject to a long and painstaking process with participation of a list of notable experts. And they have all come to the same conclusion: that the Ull meter works as intended, and that an essential breakthrough in the understanding and treatment of heart-related stress has happened. At the same time, the method has a significant advantage, when compared to pharmaceutical and surgical treatment: it is without side effects or complications, and the full intervention is carried out by the person him- or herself.

Professor, DmSc Finn Gyntelberg finds that the method may obtain official status:” It is a method with large perspectives. It is difficult to measure stress, but the Ull meter is the closest we have come so far; among other things because it is associated to a variety of other relevant factors. I see it as a significant contribution to scientific understanding of stress, what causes stress, and how it can be treated. In the long term,
one can imagine, that it develops into the method, which officially is used to measure stress”, as he assesses for Monday Morning.

What is crucial: Ballegaard has also documented the unreleased potentials, which are available in the healing resources of the human being. In other words, we are able to manage health related challenges on our own, and thus relieve the health care system to a substantial degree, which is of particular importance in a situation, in which demands and expectations to the health care sectors is exponentially increasing as we live longer.

When the results of the many years of research are put in perspective with the human, economic and social challenges related to stress, the method may end up to be of great importance for the health care sector and for our understanding of the resources of the individual human being. But it invites to - as also pointed out by several experts – that further research should be initiated with the aim more precisely to establish the extent and possibilities by including the human resources in prevention and cure of diseases. According to Ballegaard, this is also the plan.

The near future will determine if the health care sector is ready to include a method, which may have been developed from outside the traditional system, but approved by traditional standards. It will be an acid test to adaptability of the sector at a time in which such adaptability is particularly important and in demand than ever before.

Erik Rasmussen
Founder and CEO Sustainia
Published October 9th, 2017
The weekly Journal Monday Morning