

FUNCTIONAL MEDICINE AND TRAUMA THERAPY

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- reduction of chronic and auto-immune conditions

Introduction:

Conventional medicine has not accepted functional medicine as a part of medical treatment, especially of our biology, and even auto-immune conditions. In this paper i will present valid arguments to support the inclusion of functional medicine as a viable medical treatment option. These would result in lowered prescription, social, and economic costs, and a more sustainable healthcare system based on patient care could be promoted.

The increased acceptance of functional medicine by conventional medicine would substantially reduce the number of doctor's visits, and the costs that have to be paid out by the patient and the insurance companies.

I firmly believe that the social costs incurred by families, and society in general, would be reduced, because the stress placed on the family and relationships by the negative side effects of medications would be substantially reduced.

It would be prudent to revisit the current allopathic model to address government policies, and pharmaceutical policies to change them to support functional medicine, and it's integration with conventional medicine. This would support a more patient-based treatment of the biology using less medications.

I have to think that the stress currently born by the hospitals, and the practitioners who work in the hospitals would be reduced, which would result in a happier, and less stressed work environment. This may even reduce practitioner burnout.

I am suggesting that greater acceptance of functional medicine is a viable option for better patient care, with substantial cost savings to the healthcare system. I would recommend that this cost saving be applied to educate patients as to how they can better take care of their health. This would reduce chronic illness and auto-immune conditions, especially over the long term.

APPLYING FUNCTIONAL MEDICINE:

1) Foundational support of the biology:

Foundational support of the biology to treat trauma is vital, as it is responsible for 90% of the treatment and future maintenance. I will be talking about diet, stress management, nutrition, movement and sleep. Each of these plays an important role in the treatment of trauma. If one of these is deficient the others will not be optimal. Then in turn the biology will not be optimal.

Diet:

With the SAD (standard american diet) so prevalent, which generally consists of processed foods, fast foods, and foods that are high in sugar and fats there has been a spike in obesity and auto-immune conditions [1] that are seen on a regular basis.

Even grains are a concern as gluten causes GI symptoms .[1]

Many studies now that people with auto-immune conditions are being cured by adopting grain free diets [1]. This information can mostly be found in functional medicine sources, as opposed to conventional medicine.

In fact my own conventional doctor could not answer a question about Coq10 when i asked him. My functional doctor had no problem. Having said that though, a diet has to be personalized to suit one's needs. It is called a nutritarian diet. This diet was created by functional medicine doctor Dr Joel Fuhrman. This diet supports the biology and the immune system to an optimum level. It combines components from all the different types of diets and creates one that works for you. However grain, dairy, and sugar are left out as they are reactive in the GI tract.

The problem with gluten is that we can not break it down so it is treated as a foreign antigen and causes small tears in the mucosal lining and, intestinal permeability (aka 'leaky gut').[1,3]

The microbiome is also damaged by gluten [1]. Neither conventional medicine, nor my own doctor ever told me about this. I was always told that there was nothing to worry about.

Stress management:

A couple methods that are proven to be helpful is as follows:

Meditation:

Meditation is most commonly used for stress control but, it also has many other science based benefits [7]. I learned this from a functional doctor when needed. These benefits are:

- 1) anxiety control which results in a calmer nervous system.
 - 2) better emotional health through the reduction of depression.
 - 3) a greater self awareness is developed to effect easier trauma treatment, and have more permanent effects.
 - 4) memory loss is reduced, to which i can relate
 - 5) self compassion
 - 5) self compassion and compassion for others is improved.
 - 6) addiction control, with which i resonate with, is greatly improved.
- I never heard about any of these from my conventional doctor. It is apparent to me that needs needs to change.

There are many others, but all these would fit nicely in the treatment of the biology, and the trauma caused. It is important to note that no medications were ever prescribed. I would invite conventional doctors to consider these as viable options before handing out prescriptions.

Breathing techniques:

I have learned that how you breath can have positive effects on your biology [3]. Two breathing methods I use are 1) abdominal breathing, and 2) heart based breathing.

Abdominal breathing is great as it stimulates the VAGUS NERVE, but also massages the liver and gallbladder as the diaphragm goes into the abdominal cavity and then back into the lung cavity. This promotes improved GI function.

Heart based breathing:

The heart breathing technique has been researched by The HeartMath Institute for 20 - 30 years [11]. This breathing technique suggests you slightly slow down and deepen your breath, while concentrating on your heart as you breath in and out.

The purpose of this is to synchronize the heart's nervous system with the central nervous system, as this serves to calm the nervous system, support the biology, and reduce the stress you may be experiencing. This is called the heart-brain connection which, is so critical in the treatment of trauma. Science has recently revealed that the heart has 40 000 - 50 000 'brain cells' called 'sensory neurites' proving what many natural therapists have known over the years - that we think with our hearts as well as our brains.

In an article titled "The little brain on the heart", ResearchGate states "The heart has been found to have an intrinsic nervous system of its own, containing **around 40,000 neurons**

called sensory neurites. This extensive and complex neural network has been characterized as a brain on the heart or heart-brain” (Armour, 1991 (Armour, , 2007 (Armour, , 2008.

I would invite the conventional doctors to consider using this scientifically validated approach. It has served me well over the past 10 years or so, and I still use it to this day.

Movement:

From a personal point of view and personal experience, physical movement is one of the best ways to control stress. I have always been physically active and for me the increased endorphins is very helpful for the biology. Another benefit is the production of BDNF (brain derived neurotrophic factor) in the brain. This supports growth of new neurons in the brain, which can be very beneficial In the treatment of trauma.

Detoxification of the biology is also accomplished by the fact that the lymph is circulated, and perspiration removes toxins as well. The best part of this is that it is cost free, and only has beneficial effects (otherwise known as side-benefits). I invite the conventional doctors to prescribe movement as a treatment, as the functional doctor I visit when needed always asks me about this. Fitness coaches are a good place to start if there are any concerns on how to start a program that will personally work for you.

Sleep:

Restorative sleep is another very important part of trauma healing, and support for biology. This sleep time gives the biology time to heal anything that needs to be healed. Functional medicine gives natural modalities to accomplish this. Using medication to support restorative sleep only works for the short term, and eventually stops working. It does not address the root cause. I know from experience that shift work upsets the circadian rhythm, and restorative sleep is reduced. This negatively impacts our biology. Working with functional medicine, and doing somatic work, we can re-establish restorative sleep patterns even if your circadian rhythm has been changed due to shift work. I encourage conventional medicine, and functional medicine to work together to provide support for patients to get this result. I am inviting conventional medicine to consider this option. This would support our biology in a positive way, and support the alleviation of trauma related symptoms.

Nutrition:

Proper nutrition is so vital for optimal functioning of the biology and the nervous system. My conventional doctor has never asked me about that. The naturopathic doctor I see always asks about this to ensure that i get proper nutrition.

I would like to see a greater awareness by conventional medicine with regards to the importance of proper nutrition, and a desire to gain more knowledge in this area of health care. This is another great reason to integrate functional and conventional medicine. With this, implementation of Nutritional Programs, and education for both patients and doctors could easily be supported.

I would also like to suggest that more training in the educational institutions on diet and nutrition be considered, so that patients can be better supported by the conventional medicine community.

Supplementation:

As the soil becomes depleted the nutritional value in the food we eat becomes compromised, so that supplements are the norm now. I would encourage conventional medicine to do more tests and labs to determine a patient's nutritional status, as functional medicine runs many tests and labs, to properly determine what supplements are needed, if any. This would promote a more efficient and patient oriented healthcare system. This would help trauma treatment, and the optimal health of our biology. I would ask any doctor to read the book "NO GRAIN, NO PAIN" written by DR PETER OSBORNE, as I found it to be an excellent reference [1].

2) Somatic and "parts" work:

Somatic work:

Somatic work is a very helpful way to treat trauma when it is done in the proper sequence. The sequence is first safety, then support, and then expansion [3]. The word somatic is the greek word for BODY so somatic work is really body work. When i mention VOO it is a technique to stimulate the VAGUS NERVE to promote optimal GI, and biology health. Somatic work is using physical touch to support the treatment of trauma.

Establishing a felt sense of safety:

In order to treat trauma the patient must feel safe enough with the practitioner to start the process. This is accomplished by a few different methods and they are:

- 1) tracking your nervous system
- 2) orienting
- 3) grounding
- 4) creating space (pushaway)
- 5) "voo"
- 6) marking your territory
- 7) containment

Supporting trauma healing:

There are 7 exercises that I find helpful in supporting trauma healing and they are as follows. 1) support your back, 2) support your shoulders,

- 1) support your back
- 2) support your shoulders
- 3) support your feet
- 4) support your stomach
- 5) support your heart
- 6) support your neck
- 7) support your eyes

Creating capacity for trauma healing (expansion):

There are 7 exercises that I use to create space and they are:

- 1) breathing techniques
- 2) "voo" with jaw
- 3) accessing joy
- 4) titration
- 5) parts work
- 6) anger management
- 7) daily somatic exercises

This works by first tracking your nervous system to establish where your nervous system is, and then learning how to create a safe place to start the trauma healing process. Once that is done then learning to support the process to continue trauma healing is next. Increasing capacity enhances the healing process. It is important to note that stored traumas will surface when your body is ready to heal from them. As you increase your capacity in your nervous system to deal with past stored traumas they will be easier to deal with without

going into overwhelm. It is a lifelong process because your nervous system has different needs all the time, that is: it could be hourly or daily, so tracking your nervous system is done frequently. That is why there are the different exercises you can use.[3]

It is important to note that this is medication free and can be done anywhere.

Better yet, it does not cost anything. I took the “21 DAY JOURNEY” to learn it and found it very helpful for me. This is just another reason to integrate functional medicine with conventional medicine as far as i can see. I would encourage conventional medicine to consider this as a viable treatment in their practice.

Parts work:

This modality was created by Ricard C Shwartz, and Martha Sweezy. Parts work is a very effective way to control internal stress that can negatively influence our biology. It is also known as IFS.[13] that stands for “Internal Family Systems”. This modality has you identify the different parts that live in your body. When these parts work together in harmony the internal stress is minimal thereby promoting a state of homeostasis, which makes the treatment of trauma easier, more effective, and more permanent. This too is a life long process. The needs of your parts change all the time so getting to know them really helps in the treatment of trauma.

An example is when you become sad. Stop and feel what your body is feeling and ask what part is sad. There had to be stored Sadness that is being released. This is when you talk to that part and find out why it is sad, and what it needs to be okay. I completed an “ALL PARTS OF ME” course to learn this, and again from a functional medicine practitioner [3].

Conventional medicine, as far as i have seen, does not accept this as a valid treatment for trauma. I would encourage the conventional practitioners to consider it. This widely accepted model has shown great benefit among traumatised people, who report finding It very helpful to support both physical and mental health improvements. I am still discovering parts i did not know i had. This is another good reason to integrate functional and conventional medicine to promote patient based care in our healthcare system.

3) Advanced modalities:

There are many advanced modalities available in functional medicine that are very helpful for trauma therapy, but they only support the foundational structure. Advanced modalities account for 10 percent of trauma treatment. The modalities i will be covering, and have found to be helpful are HAVENING, The SEDONA METHOD, RED LIGHT THERAPY, and IASIS MCN.

Havening:

Havening is a fairly new technique that uses psycho sensory therapy to enhance neuroplasticity using touch to rewire neurons. This in effect develops new neural pathways to to eliminate trauma from any trauma anyone has experiences. The emotional component is erased, but the memory still remains, without the emotion attached to the memory. This is a medication free process so that the only 'side effect' is support of the biology and the patient feeling calm and relaxed. [2,9]

Havening has many applications, but for our purpose the applications to support our biology are stress, anxiety, panic, chronic pain, and other amygdala-based issues. These can can be recurring or one-off emotional experiences and issues. [2,9] Another helpful use is replacement of negative beliefs with positive beliefs in the subconscious.

This is how it works. The havening touch sets off an electro chemical chain reaction leading to the depotentiation or internalization of the neuro receptors that have stored the emotional response to an experience that you have had. An important note here is that the memory is still there, but the emotional response is permanently removed. Without the negative emotions the biology works a whole lot better, and better yet, no medications are involved and it is cost free.[2,9]

Once again conventional medicine does not recognise this as a viable treatment, and i would encourage them to do so. As i find it very helpful I use it all the time.

Here is an example of what i do, but there are many other applications. [2,9] the steps are as follows.

- 1) Activate an emotional event you want to work on by thinking about it as if it is happening to you now, and rate the

distress level.

- 2) Begin self havening by applying havening touch on the face or arms or the hands.
- 3) At the same time with your eyes closed visualize walking up a flight of stairs counting up to 20 out loud. As you climb each step imagine yourself becoming more calm and peaceful diminishing the distressful feelings.
- 4) On reaching the count of 20 begin to hum a family tune, as you continue to apply havening to your face, hands, or palms take a deep breath in and point your eyes to the left and right while keeping your head straight and aligned with your spine. close your eyes and inhale deeply, then breath out on the count of 5 while still applying havening touch. Next rate your distress level again.
- 5) Repeat steps 2 to 4 until the distress level is at 0 for the event you are working on. remember to use a different havening surface each time you repeat the steps.

It is important that you have the capacity to deal with the emotional event you are working on. If you do not have the capacity then freeze/overwhelm will result. This is a survival state that is not desirable. This is just one application, as there are many others. I learned this from a functional medicine doctor, not a conventional doctor. I want to encourage conventional medicine to think about this modality.

Sedona method:

This is a technique that allows you to connect to source energy or true self as otherwise known. This is a method that brings a sense of calm and parasympathetic to the nervous system, which I think would help the biology to function optimally. By connecting to spiritual energy the trauma level is substantially reduced. This method is not new, as it has been around since the 1970 era. HALE DWASKIN has been teaching this technique since 1970. I have found it to be very helpful in dealing with stressful relationships, and in my case family relationships.

It is predicated on the assumption that if you feel angry or emotional with anyone you also have stored anger or emotion in you somewhere. This again is based on your capacity to deal with this anger or emotion. We do not want to go into overwhelm using this method, but it is very effective [4].

This is how it works:

I will use the example of “being angry with your spouse”

- 1) When the anger appears you hang on to it
- 2) You then ask yourself “ can you be present with that thought”.
then you ask 3 questions.
 - could you (can you)
 - would you (will you)
 - when (will you do that now)
- 3) Ask “can you accept the fact that they are doing the best they can in the moment”
 - Could you
 - would you
 - when
- 4) Ask “could you let this thought pass, and let it go”
 - Could you
 - Would you
 - when
- 5) Ask “ could you let the universe handle this and you let it go”
 - could you
 - Would you
 - When
- 6) Ask “could you just accept this and give your spouse a hug”
 - could you
 - would you
 - when

When you do this, all the emotion just goes away and argument will not happen, thereby saving a relationship. Conventional medicine, as far as i have seen, do not even consider this technique. I think it would be a great treatment. Better yet it would save a lot of money spent on lawyers, court costs because of divorce and family separation . This is just one example. Hale Dwaskin i believe is a functional doctor. This is whom i got this modality from, and it works well. This also helps the biology function optimally for good health without medications, and this sustainable for the long term.

Red light therapy:

Red light therapy is also known as photobiomodulation or low laser therapy. This is not a new modality, as NASA was using it in the 1980's on their astronauts in outer space [10]. I learned of this technique through a functional medicine doctor [3], and not my conventional doctor. It has many practical uses [10], and here

are just a few:

- 1) sleep optimization
- 2) improved cognitive performance by promoting ATP production by the mitochondria
- 3) inflammation control
- 4) supports muscle recovery in athletes
- 5) helps with thyroid problems
- 6) reduces depression and anxiety

All of these applications will support the biology and make trauma treatment easier and permanent. I also think that this would be a great tool for ongoing support of biology.

With thousands of non-bias science-based studies as to its effectiveness, and the fact that NASA uses it on their astronauts, makes this a viable treatment for trauma, as it has been proven to be safe and effective. Just a note that it is also known as NIR (near infrared light) . So whether you see it as red light therapy, or NIR, or low laser therapy both functional and conventional medicine could work together on this modality.

All of these practical applications would nicely support the foundation. I am suggesting that this would be a good tool, not only for the immediate support of the biology, but also continued support of biology. This is just another reason to integrate conventional and functional medicine.

IASIS MCN:

Microcurrent neurofeedback is not the same as TENS.[6] here is what i was able to find on this modality. The applications for this modality are as follows:

- 1) PTSD
- 2) trauma
- 3) OCD
- 4) depression
- 5) pandemic symptoms treatment
- 6) seizures

There are many other applications for this therapy that are beneficial to treat trauma as well.

The treatments are accumulative, and positive effects usually happen in 2 treatments. Typically all you need is 10 to 20

treatments for permanent positive results. The treatment works like this. A microcurrent of $\frac{1}{3}$ millionth of a AA battery is applied to the neurons which stimulates cholinergic pathways in the nervous system. This promotes the movement of acetylcholine to the neurons which results in a 50% decrease in the delta waves, which are the slowest waves. The result is a stimulation in brain activity. Formesis was the principle on which this modality is based. That is getting a more favorable action from a cell with lower power levels.

This is just one more reason for functional medicine and conventional medicine to integrate to promote a more patient based, less prescription healthcare system.

Summary:

As I look at the current state of the healthcare system both in the United States and Canada as well, I see several improvements that should be implemented. We have equipment that is the best in the world, but the quality of healthcare is almost the worst in the world. Just to make it worse, the pharmaceutical companies are making billions of dollars annually, while the health of patients keeps on declining. The surge of chronic disease and auto-immune conditions are getting worse. I would like to suggest changes to the healthcare system to reduce costs and reduce chronic illness, and also reduce the stress being placed on our hospitals, and the practitioners working in the hospitals.

My first suggestion is to give the pharmaceutical companies less control over the healthcare system, and switch from a profit based system to a patient based system. This would remove the financial reward of prescribing medication unnecessarily.

My second suggestion would be to lobby the government to change the regulations governing the healthcare system to facilitate the integration of functional medicine and conventional medicine. This would support better patient care and cost reduction at the same time.

My third suggestion would be to require educational institutions to have mandatory courses on diet and nutrition, due to the importance it has on our overall health. These courses should be successfully completed before any doctor could receive their license to practice.

My fourth suggestion would be to encourage more training in, and implementation of, advanced modalities in conventional medicine. If they can not provide the treatment, then refer patients to someone who is qualified to do so.

These are just a few ideas that i think would be a great start that would support cost reduction, better patient care, and good health. The current healthcare model is not working, and is unsustainable as far as i can see. We can do so much better than we are presently doing.

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THROUGH THE LENS OF BIOLOGY OF TRAUMA

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