

## OSTEOPATHY AND AUTISM

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Autism has been a very controversial subject over the past few decades in the medical world. Since autism is somewhat idiopathic, there have been several schools of thought about how to treat people with autism. Given that there has been very heated controversy over a possible vaccine – autism connection, the opinions are greatly divided and heated with emotion. This makes it difficult to have sensible conversations and any possibility of any meeting of the minds as to what is really going on in the body of an autistic.. Add to this, the tendency of conventional medicine to look at bodily systems separately as opposed, holistically and this is where opinions become even more divisive. ,

Presently, there are two models for autism. The commonly accepted but possibly outdated model that states that “Autism is an incurable neurological disorder with chronic health disorders. Behavioral improvements are only possible with massive and demanding role playing.” On the other hand there is the emerging model of autism that states that, “Chronic health imbalances create the mostly reversible drops in mental, physical, and emotional capacity shown by people with Autistic Spectrum Disorder (ASD). Autistics can recover to the extent that these underlying health issues can be repaired.” These two quotes are excerpts from an article written by Jackie Macmillan B.E.S. , a noted advocate for autistic adults and children.

“ Autistic Spectrum Disorders are not diseases, they have no clear cause and no similar outcome. “ They include diagnosis such as ADD, ADHD, Asberger's, Dyslexia, Kanner's, OCD, Tourette's etc. .

Jackie, herself, is a high functioning autistic adult. In spite of her handicap and many childhood hurdles, Jackie managed to overcome these challenges and achieve a Bachelor of Environmental Studies at the University of Waterloo. She also has 2 years of pre Meds training at Queen's and various other therapeutic training. . Jackie has dedicated her life to trying to unravel the mystery that is autism by means of studying and correlating cutting edge research from around the world.

According to Ms Macmillan's article, “The Five Root Causes Of Autism”, the three causes of autism that have been historically accepted are, 1 - Brain and nervous system injury , 2 – Unresolved trauma and 3 – Impaired immune function.

Now add to this the more recent findings from the “Emerging Model”, 4 – Impaired detoxification and 5 – digestive dysbiosis or microbial imbalance within the gut.

As I searched the internet for supporting evidence, I noticed that there is very little out there. The thrust of medical research is geared towards genetics and the theory that autism is a result of genetic pre-disposition. being the main cause. The argument is that more precise modern diagnostics and expansion of the definition of Autism are the reasons why we hear about the sudden explosion of diagnosed ASD's. New research would indicate that the genetic pre-disposition theory as a stand alone, really doesn't hold water . In all fairness, some peripheral mention is made on most of the websites that I looked at alluding to chemical exposure and immune deficiency as contriplotors

CNN just reported that new studies are showing that babies are exposed to hundreds of chemicals before they are even born. These studies may be scientifically inconclusive but the correlations are there. Scientific American reports that samples taken from umbilical cord blood show that newborn infants have traces of more than 200 chemicals in their little bodies.

These reports support Ms. Macmillan's assertions that according to her fact finding research, most ASD people are toxic and have compromised digestive tracts. A study done by Dr. Stephen Edelson from the USA's Autism Research Institute found that all of the subjects in his study showed signs of impaired detoxification. Dr. Andrew Wakefield studied the relationship between digestive pain and autistic behaviors. His research suggests that pretty much all ASD people have digestive dysbiosis.

In addition to this, an article written by two respected scientific journalists for "Science" suggests, "Although the risks of developing chronic disease are attributed to both genetic and environmental factors, 70% to 90% of risk factors are probably due to differences in environment.

A person afflicted with symptoms of autism, is in a fragile state of health, meaning that it doesn't take much stimuli (eg, environmental, food, emotional, etc..) to effect a change in terms of negative or positive feedback. Ms. Macmillan says, "Once that final straw of stress is added to the camel's already loaded back, autistics tend to have systems that are fragile enough that gains or losses can be observed almost immediately, however subtly." In the case of one of my ASD subjects, even the slightest of negative feedback or change of routine always elicits a big and negative response. As we all know, it is easier to fall downhill than it is to fall uphill. So it goes with positive feedback, the effects of interventions with modalities such as Osteopathy, are most likely to be more subtle and have a, somewhat, muted response, but the effects are there, as I will explain later.

While some research shows that autism has five root causes, it is noted that ASD can be a result of any combination of these causes. No one cause is necessarily cited as the reason for this dysfunction but rather a result of a "cumulative impact". If Ms. Macmillan, Dr. Edelson and Dr. Wakefield, to name a few, are to be believed, then most ASD people are toxic and have compromising digestive issues. It is here that therapies involving bodywork and/or nutritional intervention, would make a significant difference.

For this reason, Osteopathy is well equipped to effect positive changes to the dynamics of these root causes which affect the lymphatic and digestive systems. Along with this, Osteopathy can also make a difference to one's emotional and mental state.

In order to get to the point where a therapy like Osteopathy can be applied, when it comes to ASD patients, a rather large obstacle needs to be eliminated first. From the literature that I have read and having observed from my own autistic clients, a practitioner needs to develop a bond of trust before proceeding with any therapy because most autistics have trust issues. At a very young age it is noted that ASD children are more trusting than typically developed (TD) children. Over time, their trusting nature and the fact that they are just different makes them targets of peer abuse, lying and deceit. In addition to this, many ASD people have "Sensory Processing Disorder" (SPD) which is the inability to process sensory stimuli normally as in Hyper and Hypo sensitivity. This adds a significant degree of difficulty to one's approach.

The process of introducing yourself as someone who is there to help can be a gentle and slow process. With ASD patients I have found that having a family member that the patient trusts, such as mother or father in the treatment room during treatment is key to creating an environment of feeling safe and secure for the ASD patient. After brief dialogue and once patient is on the table, as for all of one's patients, ask for permission to touch them and then apply a gentle, nurturing and completely non-invasive touch. This could be in the form of an energetic touch or Craniosacral Therapy. Science has shown that "that there is some direct evidence that in the mammalian species, touch triggers the release

of oxytocin , a hormone that decreases a stress related response.”

Craniosacral Therapy (CST) can be an excellent introduction. CST is a gentle hands on approach which can improve Central Nervous System function and help dissolve stress .. This therapy balances the cerebrospinal fluid and can dissolve restrictions of the tissues and membranes that surround the brain and the spine. To an expert touch, a restriction of the cerebrospinal fluid pulse is quite palpable.

Since many parents of autistic kids are probably overtaxed and overwhelmed , it can be helpful to invite the parent to be part of the process by they themselves gently touching their child during treatment and being mindful of any changes. This can be very therapeutic and relaxing for the parent and child.

As a bond and trust is developed between practitioner, limited joint mobilization techniques and soft tissue therapy can be applied. What I mean by “limited” is that the techniques should be gentle and on areas specified by patient as areas of concern . It is extremely important that you have the patient's permission for working on any part of the body. Note, To keep things non invasive , I feel that all of the work should be done over the clothing.

It is here that the 8<sup>th</sup> mechanism of Osteopathy is particularly of value. “Osteopathic soft tissue therapy have shown to impact behavioral manifestations associated with chronic activation of the HPA axis such as anxiety and depression...”. Because ASD patients tend to be anxious , bringing that patient out of a sympathetic state in to a parasympathetic state is key to a a successful treatment and outcome.

As stated in the “5 Root Causes O Autism” , autistic people are toxic with compromised circulatory systems. One of the primary tenets of Osteopathy , “Healing is proportionate to blood flow.”. ...and blood flow is proportionate to lymphatic flow. Joint Mobilization, Muscle Energy Techniques and Soft Tissue Therapy all contribute to improved circulatory flow which would then contribute to better waste management on the part of the lymphatic system. For autistic patients, this is vital, helping mitigate symptoms which manifest in behavior.

I should reiterate at this point that all of this manual treatment needs to be done with great care and caution within the limits of what the autistic patient can tolerate or should I say, wants to tolerate.

Once the treatments have become comfortable for the patient, the practitioner may consider application of visceral techniques to address the compromised digestive tract. Gastro intestinal disorders are the most common medical disorders associated with autism. British researchers at the University of Westminster have indicated that Visceral Osteopathic Techniques can ameliorate symptoms of digestive dysfunction. In their study, it is noted that there was a reduction of vomiting, increase in appetite and increased eye contact after the therapy. In another study done at Victoria Universtiy in Melbourne Australia , statistical analysis showed a significant improvement in GI disorders such as bloating, diarrhea, constipation, abdominal pain and also in social communication. The interesting part for me is that improvements in the GI tract can result in improved behavior and social skills. .

Visceral manipulation can release restrictions and unhealthy compensations that cause pain and dysfunction. Given that digestive dysfunction is a commonality amongst autistic patients, it would seem logical that the introduction of visceral work is imperative.

Because the abdomen is such a sensitive area, getting to that level may be a bit of a challenge with autistic patients. I reiterate that the introduction of osteopathic techniques needs to be done slowly and over several treatments , depending on the response from the patient and the patient's level of sensory perception disorder. .

Another therapy which is an off shoot of Osteopathic practice and can be very helpful in this whole process is Bowen Therapy. Bowen was developed by an Australian Osteopath by the name of Tom Bowen about 70 years ago in Australia. So profound were the results of his treatment that the present day national health plan of Australia covers Bowen Therapy treatments.

Here, in Canada, while Bowen Therapy is still largely unknown, minor studies have been done on the effects of Bowen on Autism. Frank DiMaio DC. MS has been doing extensive work with Autistic patients using Bowen Therapy. Frank surmises that Bowen calms the autonomic nervous system, bringing it from a sympathetic state in to a para-sympathetic state which intern calms the eneric nervous system. This system resides mostly in the gut and calming it would certainly help reduce abdominal pain and digestive upset.

I mention Bowen because it seems that it would be an excellent preliminary adjunct on to an osteopathic schedule of treatments because of its gentle and subtle nature. It is recommended that Bowen be done on its own in order to attain the desired effects and allow the body to process the stimuli. With out question Bowen activates a relaxation response both physically and energetically. Keeping this in mind, I've been experimenting with with starting osteopathic treatments with a short course of Bowen Therapy in order to bring the patient from sympathetic to parasympathetic , a bit of an energetic warm up. It seems to open up my autistic client and enhance the osteopathic experience. I have tried this approach on my friends, kids and other therapists and have been getting very positive feedback. I think that Bowen may have as much value as Osteopathic thermogenic techniques to prepare the body. In the case of my autistic client, the thermogenic techniques would be too aggressive.

As noted before, the practitioner's approach can make the difference between a successful and unsuccessful treatment, particularly when it comes to autistic people

### **My Personal Clinical Observations**

In my Bowen Practice I have 2 clients with diagnosed ASD. As both are adult children of good friends of mine I was able to secure permission to work on them using Osteopathic techniques.

#### **SUBJECT A**

Subject A was diagnosed with moderate ADHD at age 10 and has been taking Adderol for 12 years. His main symptoms are impulsive behavior issues, inability to focus in certain situations and chronic constipation. He is presently 22 . He is in general good health , has a full time job and is a semi-pro skateboarder. He is very high functioning.

While apprehensive at first, the treatments started off with gentle Bowen sessions. I used Cranioscaral technique as an assessment tool.

As treatments progressed, I started introducing Joint Mobilization and MET . Some Carniosacral and Bowen tools were used with every treatment.

I directed him to a Homeopath/Naturopath for nutritional direction. Niacinamide, Probiotics, Fish Oil and Digestive enzymes were suggested.

Several treatments in, I started applying some very basic and gentle Visceral Manipulation to his abdomen. Along with loint MOB and MET .

#### **Observations**

One immediate observation from Bowen on its own was a definite calming and relaxation, albeit temporary.

A little reticent about coming for treatments at first but now after numerous osteopathic sessions, he requests to come back and now does not want to get off the table .

He is noticeably calmer and has requested to reduce his Adderol intake.

After starting on the supplements and having received some VM, his complaint has been that he has too many bowel movements.

Given his extensive skateboarding background his body has been subject to much minor trauma. Osteopathy has been instrumental in mitigating acute pain by means of Joint MOB, MET and active release.

I believe that he is in better shape both physically and mentally as a result of the treatments and most importantly, he believes it also.

## Conclusions

This subject has benefited in many subtle ways from these treatments. His overall demeanor is improved along with his physical health. Without question an improved diet has been a contributing factor.

## SUBJECT B

Subject B is a 22 year old female. Adopted from eastern Europe, she was identified as Developmentally Delayed and it wasn't until age 16 that she was officially diagnosed with Autism. As it stands now her developmental level is somewhere between ages 8 and 12. Seems to have a Sensory Perception Disorder. She suffers from constipation, abdominal pains, lack of appetite/and muscle hypotensivity. She also has behavioral issues.

Initial treatments were very short and involved Bowen Therapy.

A lot of apprehension and mistrust. In spite of this, she agreed to always come back.

As treatments progressed, length of time increased . Slowly started introducing Osteopathic joint mobilization on parts of the body that subject specified and was comfortable with.

MET was not applicable here because of coordination and comprehension issues.

She has allowed for limited Visceral Manipulation . Very basic and gentle moves on liver, stomach and colon.

## Observations -

As I stated earlier, this client was very apprehensive and distrustful of anybody touching her.

It is here that I invited her mother to be part of the process and hold on to her hand or or foot during the treatment. This certainly eased some of the tension.

The initial treatments lasted only about 10 minutes. As she became more trusting of the situation, table times increased. Now she is able to lie on the table both prone and supine for at least 50 minutes.

According to her mother, she looks forward to coming back.

Mother's observations are that her daughter has had a significant shift in behaviour , less oppositional defiant. More willing to listen.

Mother says that her daughter appears to be less constipated and has an increased appetite. New willingness to try new foods.

## Conclusions

In this case, the lines of trust have been the biggest hurdles to cross. . Given the fact that digestive function has a direct impact on behaviour, there is no doubt that improved Gi comfort has positively modified her behavior patterns, albeit in subtle ways.

## Closing Statement

Although most of the evidence supporting Osteopathic intervention in the case of Autistic Spectrum Disorder patients is scientifically inconclusive, the anecdotal and observational evidence is promising and compelling. The efforts are certainly worth continuing.

Modern medicine has little to offer in terms of mitigating the symptoms or causes of Autism. Many parents are frustrated and stressed with the lack of options. I feel that Osteopathy may offer options. It is not likely that autism could ever be cured however, I feel that there is a very real possibility that symptoms can be managed by means of Osteopathy and improved nutrition.

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