

# Increased interpersonal connectedness and decreased agitation in a 6y male with Autism and Attention-Deficit-Hyperactive Disorder

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**Background:** A six-year-old male presented for Chiropractic care with a dual diagnosis of Autism, and Attention Deficit Hyperactive Disorder. The child's parents reported agitation and low interpersonal connectedness as primary concerns, and the child was non-verbal at the time of his presentation.

**Management:** The patient was placed on a six-month care plan during which he was checked for subluxations and adjusted according to the MC2 protocol.

**Outcomes:** At the conclusion of the care plan, parents and teachers reported that he his verbal ability was increasing, his agitation had significantly decreased, and his interpersonal skills were showing marked improvement.

**Indexing Terms:** Chiropractic; Subluxation; Autism; ADHD.

## Introduction

Typical presentations of Autism (Autism Spectrum Disorder, ASD) has included symptoms such as agitation and difficulty with interpersonal skills. While the aetiology of the condition remains unknown, and the symptomatology can be diverse and complex, these two factors occur in many children with ASD.

Increasingly, research is indicating that an association between ASD and autonomic atypicalities may exist. (1) While there is variation on the presentations of such atypicalities and the specific subtype and behavioural and physiological profile, it highlights the potential role for nervous system care in people with ASD. However, there is a broader picture to consider when it comes to social function, aggression and ADHD.

Recent research indicates that between 30 and 50% of individuals with ASD also have ADHD symptoms or diagnosis. (2) Prior to the release of the DSM-V, dual diagnosis was

*... a 6 month plan of Chiropractic care assisted this 6y male to better focus in class and socialise with peers'*



not possible as the presence of ASD was an exclusion criteria for an ADHD diagnosis. Thus, these numbers may not be accurate.

Regardless of the potential under-representation of dual diagnosis patients, ADHD and ASD symptomatology has been linked to social impairment and emotion dysregulation has been posited to play a significant role in this. (3) While emotion dysregulation has been found to impact social function in both clinical and non-clinical populations, the challenges experienced by people with ASD and their carers is well-documented.

While it would be premature to suggest a causal link between sympathetic over-activation and emotional dysregulation in children with ASD contributing to social difficulties, Porges' *Polyvagal Theory* suggested that parasympathetic activity may impact the organism's ability to respond to the environment around it. (Cited in(4)) This speaks to the heart of Chiropractic; that our ability to care for the nervous system may impact a person's state of adaptability.

While it is easy to make such statements where a patient is neurotypical, in cases of ASD there are often significant challenges. Until such a time as larger studies can give us the ability to confidently claim the impact of chiropractic on ASD symptomatology, case report data gives unique insight into possibilities for individuals under care.

This present report discusses the reduction of aggression and increase in social function in a child with both ASD and ADHD.

### Case details

A 6y male presented to a chiropractic clinic for assessment and care. He was a novice to chiropractic care and had an existing diagnosis of autism and ADHD (Attention Deficit Hyperactivity Disorder).

While his mother reported that he was very active she also noted that he had difficulty focusing and staying on task, was not responsive to his name and was non-verbal. She reported that he used little to no eye contact, had difficulties sitting in the same spot for more than ten seconds, and had difficulties falling asleep and staying asleep. He would also engage in destructive behaviours such as tearing books up instead of reading them.

### History and examination

The birth process and maternal health was reported as being unremarkable. His mother is a nurse by profession and reported no complications during pregnancy or birth. No other significant health history was noted for the patient. At the time of his presentation for chiropractic care, a thorough examination was undertaken. During this examination it was noted that the child had a side gaze, in that he would only look at you from the sides of his eyes. He also had a right head tilt, a shoulder shrug when palpating C1-C2, and a hypersensitive cervical spine.

This finding carried through to the thoracic spine, where it was discovered he had a significant back arch when this area was palpated. The chiropractor noted this may signify a hyper-sympathetic response in his nervous system.

Insight CLA Thermal Scans were used, and indicated significant heat difference in the lower cervical and upper thoracic spine. Subluxations were noted at C1, C2, T6 and the right Sacrum. Additionally, the patient's right leg was half an inch shorter than the left upon supine leg checks.

### Management

Aims of care were established as removing interference from the nervous system by correcting subluxations so that the body would be better able to regulate itself. Additional clinical aims of seeing improvements in sleep, focus, attention, and less stress in the nervous system were established and the upper cervical spine was determined to be an area of focus for care.

The patient was placed on a care plan in which he was seen two times per week for the first 5 months, and then reduced to one visit per week for the remainder of the year. During this time he was adjusted using manual adjustments and activator methods, and the MC2 protocol was observed.

Additional care was offered as advice to look at the specific carb and GAPS diet to reduce possible inflammation caused by certain foods

Our expected improvements in sleep and focus after 14 visits were reported by the mother.

### Outcomes

After the first gentle adjustment of his upper cervical spine, he was able to take a big breath and relax. Almost instantly, he became more calm and focused, and began sitting in a chair rather than jumping on it. On the second visit, he was still calm and his mother reported that he went home and fell asleep 30 minutes after his bath and dinner. This usually took over two hours.

At the second visit, it was observed that he was still more focussed and attentive when the chiropractor or the mother were speaking to him. It was clear from observation that he was trying to listen more. There was still a significant amount of sensitivity in his upper cervical spine and thoracic spine, but after six visits that sensitivity diminished significantly.

Notably over the first weeks of care he became more verbal and was trying to speak more. This coincided with the child having more interactions with peers, especially at the playground. While he usually was more reserved and just played by himself, he was now seeking out peers and wanting to play with them. It was reported that he is now attending his classes and was moved from a special day classroom setting to a general education setting. He was pointing to things and trying to talk more, and exhibiting more coordination on the playground and at school. He was reported as being more responsive to his name and making eye contact in school settings. This was consistent over time, as was a calmer demeanour and improvements in sleep.

There was also a decrease in his destructive behaviour as he was no longer tearing books apart. He was now able to turn the pages appropriately and read with his mother (following along with his eyes) as he waited to turn the page.

The chiropractor also noted that he was becoming more responsive to his name and knew when it was his turn for an adjustment. He would get up from reading with his mother and run to the adjusting table.

Objectively, thermal scans showed a reduction in heat in the previously unbalanced regions, and postural analysis showed that the head tilt was now gone.

### Discussion

These changes in his life means he now has the ability to have more effective communication on a day-to-day basis and to have an opportunity to gain more education as his focus has improved at school. He now has better communication and interactions with his peers.

Chiropractors make no claim of 'cure' with autism or ADHD. In this case there were no other notable changes made in the child's routine, and significant changes in his well-being were noted over the course of care. Therefore we can state there is a relationship between Chiropractic care and the function of this child's nervous system tone and sympathetic arousal, and that a restored state of calm had been noted.

This may have significant impacts over the lifespan as he is now able to engage better with people and education. Further research would be required in order to generalise findings to a larger population, but the impact on this patient stands as reported.

Additionally, there are whole-of-family impacts due to these outcomes. His mother can now focus on their younger son as he begins to grow and mature. She does not need to worry about her older son running away or destroying offices anymore. She is able to have more time for her self-care. It is therefore clear that caring for this patient has had positive impacts on stress levels across the household.

## Conclusion

Improvements in the behaviours of this patient were associated with the removal of interference from the nervous system. This was achieved by analysing and removing subluxations to allow the body to heal itself from within.

Children who are struggling to focus in classrooms may benefit from Chiropractic assessment and care with a view to helping them adapt to their environment and have more focus in classroom settings.

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### *About the Chiropractors*

Dr Kevin Johnson is a neurology-based chiropractor at the *Centre for Human Health and Potential* in San Diego, California where he focuses on helping both children and adults with chronic health challenges. Kevin graduated from Life West Chiropractic in 2017.

### *About the Case Report project*

This Case Report is a part of the [ASRF Case Report Project](#), a project designed to gather client studies from chiropractors and transform them into much-needed case reports, focused on the effects of chiropractic care on clinical presentations highly relevant to chiropractic, such as stress, immunity and adaptability.

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