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Chiropractic care has an excellent safety record in Australia

The Chiropractors' Association of Australia (CAA) is disturbed by recent media reports which question the safety and efficacy of chiropractic care, particularly concerning children.

Both in Australia and around the world chiropractic care is a low risk modality of health care. There have been few if any serious adverse events reported in medical literature in the past twenty years despite utilisation rates for chiropractors increasing significantly in this time.

In Australia there are more than 12 million visits to chiropractors each year. Over 1 million of these (approximately 8.6 per cent of visits annually) are paediatric visits.

What are the facts about chiropractic safety and efficacy?

1. The safety record of chiropractic care in Australia is exemplary.
2. Chiropractic care has a very high expressed satisfaction rate with patients.
3. There is a significant existing evidence base and active research base in Australia and internationally that validates chiropractic care.
4. Chiropractors are university educated, nationally regulated healthcare professionals who care for and about their patients.

How does chiropractic safety and efficacy compare to other registered health professions?

As at 30 June 2015 there were 4,998 chiropractors registered in Australia.

In 2014-15, there were 75 notifications across Australia about chiropractors, notably fewer than the 111 made in 2013-14. To put this in perspective, 1.5 per cent of registered chiropractors were the subject of a notification in 2014-15.

In 2013-14 the Australian Health Practitioner Regulation Agency (AHPRA) reports there were 10,047 notifications about practitioners in the 14 health professions registered to practise in Australia. 1.4 per cent of 619,509 registered health practitioners were the subject of a notification in 2013-14.

In 2013-14 fifty six per cent of all notifications were about medical practitioners who make up 16 per cent of all registered health practitioners.

How is chiropractic care regulated?

Chiropractors practice in over 100 countries with legislation recognising and regulating the profession in 48 of these countries, including Australia.

In Australia chiropractors are regulated by the Chiropractic Board of Australia and, like all other registered health care practitioners, must adhere to National Law and profession specific codes of conduct and guidelines.

Guided by a nationally consistent law, AHPRA and the 14 National Boards work to regulate health professions in the public interest. This includes investigating concerns and complaints about registered health practitioners.

What do Chiropractors do and how do they treat children?

According to the World Health Organisation (WHO), chiropractors diagnose, treat and prevent neuromusculoskeletal derangements and support general health measures in their patients, primarily through the use of manual therapy (adjustments) (1). The CAA believes chiropractic is a health care discipline which emphasises the inherent recuperative power of the body to heal itself without the use of drugs or surgery. The practice of chiropractic focuses on the relationship between structure (primarily the spine) and function (as coordinated by the nervous system) and how this relationship affects the preservation and restoration of health. Chiropractic recognises the value and responsibility of working in collaboration with other health care practitioners.

The Chiropractic Board of Australia has developed a [Code of Conduct](#) for chiropractors. Best practice with children and young people involves placing the interests and wellbeing of the child or young person first and ensuring there is informed consent from the child's parent or guardian (2).

The risks of care and alternatives to care must be sufficiently explained to the parent or guardian and the chiropractor should identify 'red flags' particular to children and young people and investigate, manage, co-manage or refer to a medical practitioner as appropriate. Finally, practitioners should modify all care and treatment to suit the age, presentation and development of the patient (2).

The Chiropractic Board of Australia published a [Position Statement](#) on paediatric care in October 2015. The statement recognises that training in providing chiropractic care to children is included in accredited undergraduate chiropractic education (3) and that current research indicates the incidence of serious adverse events, either directly from manual therapy or indirectly by delayed or mis-diagnosis, is rare but real (4).

The Board emphasises best practice approaches to providing chiropractic care to children are published in peer reviewed literature (5) and this evidence should be used to guide clinical practice and ensure chiropractors provide safe care.

Typical chiropractic care of infants and young children involves the use of low-force low-amplitude techniques in contrast to those used on the adult population which typically involve more high velocity, low-amplitude thrust in combination with a variety of low-force low-amplitude treatment procedures.

Chiropractors are taught a range of techniques and a recent European study on forces (8, 19) demonstrates that low amplitude, low force techniques are more suitable for the newborn and young children.

Can I have confidence in what Chiropractors do?

Chiropractors are regulated by the Chiropractic Board of Australia and like all other registered health care providers, must adhere to National Law and profession specific codes of conduct and guidelines. CAA acknowledges there are gaps in the knowledge base in relation to the chiropractic care of children and more research is needed. This is occurring.

What remains unchanged is that chiropractic care has an excellent safety record with children and is delivered by educated, regulated healthcare professionals. In addition, given the patient-centric nature of chiropractic care, there is high expressed satisfaction by parents/guardians seeking care of their children.

The profession is committed to ensuring evidence informed care is provided to patients.

Explanatory Notes

Paediatric Visits to Chiropractors

There are over 1 million paediatric visits to chiropractors across Australia annually equating to approximately 8.6% of all visits to chiropractors (6). In the USA Lee (6) estimated 30 million child visits to chiropractors per annum based on a 1998 Boston survey that showed 420,000 visits by children to chiropractors in that year. More recently, studies in Europe estimate that 10% of visits to Danish chiropractors are for people under 20 years, based on data from 2007-2008 surveying of 142 chiropractic clinics over eleven months (7) which equates to an estimated 8,700 episodes of chiropractic care for children. Interestingly, visits for children less than 1 year was 43% and within this group 74% of the children were less than 4 months old. Fifty percent of those children's parents/guardians sought care for the treatment of crying and colic. Children between the ages of 4 months to 23 months were mainly seen for motor and developmental delay and asymmetry.

In a 2010 study (8) across 20 European countries, 956 chiropractors were surveyed and 891 of them reported that 8.1% of their patient load per year were children. This extrapolated to some 19,821 chiropractic paediatric visits a month. Similar to the Danish study (7) already discussed, Marchand reported 57% of all visits of children to be musculoskeletal (MSK) problems, followed by neurologic 23.7% and non-MSK to be around 18.8% (8). The 0-2 month age group had the greatest number of deemed non-MSK conditions treated, with 37.2% treated for colic and constipation, 19.36% treated for crying and sleep disorders, 11% for plagiocephaly and 17.9% presenting for torticollis and Kinematic Imbalances due to Suboccipital Strain (KISS). In contrast, 65% of the 2-5 year old children were treated for MSK conditions and 11% were for headache and the same for ear, nose or throat (ENT) problems. In the 6-12 years group the majority of all child visits were MSK related with 23.4% from headaches. Black and colleagues (9) compared the 2012 National Institute of Health Science (NHIS) survey results with one earlier in 2007 and concluded that 1.9 million children used a chiropractor or osteopath in the USA during the 12 months of the survey.

Referrals to Chiropractors

In the UK, Denmark and Switzerland, medical practitioners and maternal health nurses most commonly refer infants for chiropractic care for the treatment of asymmetries, fussiness and difficulties with breast feeding (7, 10). Specifically, in Scandinavian parts of Europe where chiropractic is more integrated into the medical system, a Swiss survey of 183 chiropractic medicine practitioners reported that 91% saw children between the ages of 6-17 years and 78% of chiropractors treated children less than 5 years. In this Job Analysis Survey in 2009, Swiss chiropractors (11) reported that 56% of the patients attending were referred from other patients and just over half reported that between 22-75% are patients referred directly from a medical practitioner. Additionally, 22% of surveyed chiropractors report direct referrals from paediatricians. This may be because Swiss chiropractors are well recognised by the medical profession and all chiropractic services are fully insured and integrated in the medical system.

Paediatric Chiropractic Care

Australian Chiropractors are trained to care for people across the lifespan, and this includes infants and children at recognised programs accredited by member councils of the Councils on Chiropractic Education International (www.cceintl.org). In accordance with WHO (and other) guidelines techniques that are applied to newborns, infants and young children vary considerably, or are significantly modified from those taught and used on the adult population (1). Typical chiropractic care of infants and young children involves the use of low-force low-amplitude techniques such as touch and hold, cranial therapy, mobilisations and gentle stretching (8, 12, 13). This

is in contrast to those used on the adult population that typically involve more High Velocity Low Amplitude (HVLA) thrust in combination with a variety of low force low amplitude treatment procedures (14, 15)

Chiropractic is a profession, not a technique. It is therefore important to continue to educate and inform the public and our health colleagues that a chiropractor may give advice to a parent of a newborn on such things as breastfeeding, settling, 'tummy time', sleeping and then check for any asymmetry in function of muscles and tissues of the spine and cranium. Special low force, low amplitude techniques are used in infants and young children that are very similar to those applied by practitioners in other manual therapy professions such as physiotherapy and osteopathy. For example, literature suggests osteopaths also conclude that the presence of asymmetry in the cranial and spinal system may be present from birth (16) and also work to gently restore that symmetry.

Additional examples include medical practitioners in Germany trained to apply spinal manual therapy on infants to reduce Kinematic Imbalances due to Suboccipital Strain (KISS) (17). Biedermann and his colleagues use modified manual High Velocity Low Amplitude thrusts (HVLA) to reduce suboccipital strain, dural torqueing and muscular imbalance in newborns (17). Biedermann quantified the diagnostic signs demonstrated by infants with KISS I as "a body posture of lateroflexion" with asymmetry in the upper and then lower extremities and changes to gluteal folds. Additionally, those infants identified to have the more functionally complex KISS II demonstrated difficulties with "over extended sleeping position which may lead to orofacial hypotonia" and then subsequent swallowing and sucking problems which were clinically presented as unilateral breast feeding issues (i.e. the infant had restriction to movement of the head and neck as well as poor co-ordination of the mouth and tongue to breast-feed adequately) (17).

Chiropractor Joyce Miller (10) published results of a case-series of 114 suboptimal breastfeeding infants, demonstrating a correlation between application of gentle chiropractic care and an improvement in breastfeeding. A further blinded study on infantile colic looked at unsettled infants crying time and demonstrated a statistically significant reduction in crying time in those infants under gentle chiropractic care in comparison to the non-treatment control group (18). Specifically, 102 infants were treated using low force non rotational manual therapy by supervised chiropractic students. The majority of the patients had been referred by the local maternal health nurse or the general practitioner. A crying diary over 10 days demonstrated an 18.6% improvement in the non-treatment blinded group, a 44% improvement in the treated blinded group and a 51.2% improvement in the non-blinded treatment group. The higher improvement in the non-blinded group could be attributable to patients wanting to 'please' their chiropractor with a better improvement. There was a 136.5% improvement in reduction of crying time in children with infantile colic in the blinded treatment compared to the blinded non treatment group. This study indicates that there is support in the peer reviewed literature for the application of gentle chiropractic therapy to newborns suffering the symptoms of colic and excessive crying.

As stated in a CAA press release on the 28th of April, "there is a significant body of Australian and world-wide research in and about chiropractic that supports its place in health care". The application of similar styles of gentle manual therapies by other professions on infants and children, supports the application of these same therapies by chiropractors. Medical practitioners in Germany treat thousands of newborn infants every year with manual therapies for the treatment of asymmetry, unsettled behaviour and the difficulties with breast feeding that are frequently the result of this asymmetry (17). Further collaboration with the medical profession and maternal health nurses across Australia is warranted to offer important assistance to infants suffering from such asymmetry and referral to a chiropractor with experience and training in utilising gentle techniques would be beneficial.

Chiropractors are taught a range of techniques and in a recent European study on forces (19), agree that the low amplitude, low force techniques are more suitable for the newborn and young child.

A Review of Adverse Events

A recent paper reviewing adverse events across all professions utilising manual therapies on children stated in its conclusion that “Published cases of serious adverse events in infants and children receiving chiropractic, osteopathic, physiotherapy, or manual medical therapy are exceedingly rare. There have been no cases of deaths associated with chiropractic care reported in the academic literature to date. Three deaths were reported caused by other types of manual therapists. Performing a thorough history and examination to exclude anatomical or neurologic anomalies before the provision of care, appropriate technique selection and its application may further reduce adverse events across all manual therapy professions” (20).

Furthermore, the Journal of Manipulative and Physiological Therapeutics (JMPT) recently published a best practice guidelines consensus document which concluded that limited support was found in high-quality studies for the chiropractic management of children suffering from asthma, infantile colic, nocturnal enuresis and respiratory disease. It recommended a strong emphasis on future research and, in the absence of this, that “A therapeutic trial of chiropractic care can be a reasonable approach to management of the pediatric patient in the absence of conclusive research evidence when clinical experience and patient/parent preferences are aligned. It also recommended that co-management with other appropriate health care providers was appropriate when there was the presence of red-flags, there was no improvement, with non-MSK conditions, or a parent had requested a referral (21).”

Summary

The CAA reiterates that as a profession, chiropractors are committed to providing Australians with the best available research to make an informed decision regarding chiropractic care and receive the most current recognised treatments.

There is a significant body of evidence and research both in Australia and Internationally about the role and effectiveness of chiropractic care. The evidence base continues to develop and CAAN commissioned independent research through the University of Technology Sydney and currently supports 4 PhD studies in Australia.

The Code of Conduct for chiropractors within the National Regulation and Accreditation Scheme (the National law) has its basis in an international review of effectiveness. CAA works with AHPRA and the Chiropractic Board of Australia to ensure professional conduct standards with minimal public harm and risk, and with beneficial outcomes for patients. CAA has confidence in the National Regulation and Accreditation Scheme and is a stakeholder along with the other registered health professions in ensuring it meets its Objectives.

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