JOURNAL ABSTRACTS

The use of high-velocity, low-amplitude techniques in paediatric osteopathic care: two multinational cross-sectional surveys on clinical practice and educational curricula

van Dun, P.L.S., Bohlen, L., Ellwood, J. et al.

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Abstract

Background: Up to one osteopathic consultation out of four involve infants and children. Although the clinical effectiveness of osteopathic care in paediatric populations remains inconclusive, available evidence suggests that it is generally safe. In contrast, high velocity, low amplitude technique (HVLA) has been associated with potential adverse effects. To inform a professional position on the use of HVLA techniques in paediatric care, this study investigated (1) the use of HVLA techniques by osteopathic practitioners in the treatment of infants, children, and adolescents, and (2) the extent to which HVLA techniques are included in osteopathic training programmes for these paediatric age groups. **Methods:** Two online cross-sectional surveys were conducted. The first targeted osteopathic practitioners and consisted of seven close-ended questions. The second survey was directed at osteopathic education institutes (OEIs) in Europe, Australia, Brazil, Israel, and New Zealand and consisted of three close-ended questions. Surveys were implemented via REDCap and made available in 11 languages. Participants were recruited between October 2025 and January 2026. **Results:** Among responding practitioners (n = 2607, response rate: 10.7%), 6.5% reported using HVLA in newborns or infants, 43.5% in children, and 78.3% in adolescents. Most respondents (54%) who apply HVLA to newborns and infants reported doing so "rarely". Of the 62 responding OEIs (response rate: 30.7%), 91.4% offered osteopathic paediatric education; however, only 4.8% reported teaching HVLA for newborns and infants, 11.3% for children, and 56.4% for adolescents. Most respondents (70.2%) held an HVLA-opposed stance. Among the distinct practitioner profiles identified in the prioritisation of conditions for HVLA use in newborns and infants, the precaution-informed stance (11.2%) was the most strongly associated with paediatric practice and with the highest reported HVLA use in this age group. **Conclusions:** Most respondents did not use HVLA in newborns and infants, with utilisation increasing in older paediatric age groups, and the majority expressed opposition to paediatric HVLA. More permissive stances were associated with greater HVLA use and more training. The generalisability of the findings is limited by potential coverage and self-selection bias, possible duplicate responses, and the low and variable response rate to the survey of osteopathic practitioners. Given its continued application, an evidence-based position statement and robust research on the safety and effectiveness of HVLA in paediatrics are urgently needed.

Open Access: https://link.springer.com/article/10.1186/s12998-026-00670-y#citeas.

Smartphone Ownership and Eating Disorder Symptoms in Early Adolescence

Nagata JM, Wong JH, Talebloo J, et al.

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Abstract

Importance: Adolescents have been owning smartphones at increasingly earlier ages. The associations between age of smartphone ownership and eating disorder (ED) risk among adolescents have not been examined. **Objective:** To examine cross-sectional and longitudinal associations between age of smartphone ownership and ED symptoms in adolescence. **Design, Setting, and Participants:** The Adolescent Brain Cognitive Development (ABCD) Study used a stratified, probability-based sample of schools and recruited participants from 21 study sites across the US. Schools were oversampled based on race, ethnicity, socioeconomic status, and urbanicity to minimize systematic sampling biases in recruitment. Percentages were weighted based on American Community Survey data to represent population estimates. Cross-sectional and 2-year longitudinal analyses applied generalized linear models with a Poisson distribution and log link to ABCD Study data from years 2 to 6 (2018-2024). Data were analyzed from 2025 to 2026. **Exposures:** Smartphone ownership at 12 years of age (yes or no). **Main Outcomes and Measures:** Binge-eating symptoms, inappropriate compensatory behaviors to prevent weight gain, worry about weight gain, self-worth tied to weight, and any ED symptoms were examined separately at 12 and 14 years of age (yes or no). **Results:** Of 8957 participants (4712 [51.8%] male), 6225 (69.5%) owned a smartphone at 12 years of age. Of 6225 participants, the most prevalent ED symptoms were binge-eating symptoms (315 [9.2%]) at 12 years of age and compensatory behaviors (494 [20.5%]) at 14 years of age. In covariate-adjusted analyses, owning a smartphone at 12 years of age was cross-sectionally associated with a higher prevalence of binge-eating symptoms (prevalence ratio [PR], 1.61 [95% CI, 1.17-2.23]; P = .003), tying self-worth to weight (PR, 2.21 [95% CI, 1.03-4.74]; P = .04), and any ED symptom (PR, 1.36 [95% CI, 1.09-1.70]; P = .007). In covariate-adjusted analyses, owning a smartphone at 12 years of age was longitudinally associated with a higher risk of binge-eating symptoms (risk ratio [RR], 1.67 [95% CI, 1.11-2.52]; P = .01), using inappropriate compensatory behaviors to prevent weight gain (RR, 1.50 [95% CI, 1.16-1.94]; P = .002), tying self-worth to weight (RR, 2.03 [95% CI, 1.28-3.19]; P = .002), and any ED symptom (RR, 1.49 [95% CI, 1.19-1.87]; P < .001). **Conclusions and Relevance:** In this cohort study of US adolescents, smartphone ownership was associated with a variety of ED symptoms, suggesting that the timing of smartphone ownership may be associated with ED risk. Future research is needed to characterize the mechanisms underlying these observed associations.

Evidence for Social Media Legislation Strategies
Nagata JM, Nayak S, Huang OH, et al.
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doi:10.1001/jamanetworkopen.2026.26965.

Abstract
Importance: Social media use has grown rapidly, with particularly high adoption among adolescents. These patterns carry both risks, such as problematic use, and potential benefits, such as social connection, creating challenges for policymakers developing regulatory approaches. **Objective:** To synthesize existing evidence and policy approaches related to legislative efforts addressing adolescent social media use and to assess the potential risks, benefits, and evidence gaps associated with commonly proposed or implemented policy strategies. **Evidence Review:** Evidence was identified through database searches from PubMed and Web of Science focused on policies and legislative proposals from August 1, 2003, to March 22, 2026, targeting adolescent social media use. Policy categories included warning labels, age restrictions and assurance (eg, verification), parental consent and monitoring, school phone policies, platform design regulations, and legislation addressing deepfakes and nonconsensual intimate images. **Findings:** The search yielded 672 articles, of which 39 met inclusion criteria. Most publications addressed parental consent and monitoring (n = 12), deepfakes and nonconsensual intimate images (n = 8), age restrictions and assurance (n = 7), and design bills (n = 6), with fewer articles examining school phone policies (n = 4) and warning labels (n = 2). Warning labels may increase awareness of potential risks, although data largely consisted of expert opinion. Age assurance measures were commonly circumvented, and proposed biometric or artificial intelligence (AI)—based verification methods had unresolved challenges. Parental monitoring and consent were associated with lower problematic social media use and positive adolescent outcomes in survey-based publications. School phone restriction policies were widely adopted, but evidence regarding academic, social, or mental health effects was limited. Design-focused legislation, such as the Kids Online Safety Act and Age-Appropriate Design Bills, emphasized platform accountability, transparency, and safeguards for minors. Policies addressing AI-generated sexual deepfakes and nonconsensual intimate images aimed to reduce exposure to psychologically harmful material, although evaluation of their effectiveness was limited. **Conclusions and Relevance:** In this review of legislative approaches to adolescent social media, observational and expert-opinion publications provided preliminary insights into potential benefits and risks, but systematic evidence evaluating the effectiveness and unintended consequences was limited. Rapid research, including timely evaluation of newly enacted legislation, is needed to assess the effects of different policy approaches and support the iterative, collaborative development of theory-driven, child-centered policies.

Infant vertical suspension testing
Rosen MG
Asia-Pac Chiropr J. 2024 Oct-dec;5(2):6
https://www.apcj.net/papers-issue-5-2/#RosenInvertedSwingTest.
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Narrative: In 2018 a Melbourne Chiropractor placed on social media a video of him safely and professionally performing an infant vertical suspension test. Leaving aside the stupidity of any Chiropractor using social media to show videos of their professional activities which are private interactions with a patient, the video of the test was used by Deep Medicine to hysterically and politically attack Chiropractors for inappropriate treatment of children. In turn this led to the Government of the State of Victoria, Australia, in 2019 commissioning an agency of its Department of Health and Human Services, Safer Care Victoria (SCV), to undertake a review of chiropractic manipulative care for children under 12 years of age. This review found Chiropractic care to be safe. However as of September 2024 the care of children in Australia by Chiropractors remains in question given the Federal Minister for Health, again under medical pressure, required the Chiropractic Board of Australia to restore its warning against Chiropractors providing spinal manipulation to children under two. The actual test in question sits within the standard protocols of safe care of infants in both medicine and chiropractic, a reality obfuscated by the medical enemies of Chiropractic in their eagerness to advance the Iowa Plan for containment of the profession. This paper by a world-renown paediatric Chiropractor and educator examines the 'infant vertical suspension test' and gives clinical meaning to the observations provided by this safe and effective, gentle clinical test.

JOURNAL ABSTRACTS

An Interpretation of the Safer Care Victoria Review into Chiropractic spinal manipulation of children under 12: Its ambiguity, internal contradictions, and inconsistencies

Rome PL. Waterhouse JD. The Vertebral Subluxation premise: Principle 5, the intent is to correct dysfunction and restore normal function. *Asia-Pacific Chiropr J.* 2026;6.4.
https://www.apcj.net/papers-issue-6-4/#RomeWaterhouseSCVInterp.

Introduction: A Safer Care Victoria (SCV) review of chiropractic manipulation of children under 12 appears to have been misinterpreted and misquoted in the media and elsewhere. (1) The Review's recommendation did not ban spinal manipulation, it did however, advise all four professions who provide the manual therapy that they should not provide spinal manipulation of the cervical spine for children under 12 years of age for a certain range of conditions as it claimed there was a lack of evidence of safety or efficacy. (Recommendations 2, 5, 6, SCV p 6, 7) There was no recommendation for a ban on Chiropractic spinal manipulation, due to the lack of evidence of harm. Although not specified in 2020 or 2023, in June 2024, the Chiropractic Board of Australia (CBA) 'reinstated' its '2020 interim policy' regarding paediatric patients of 2-years of age. (2 - 5) This followed a request of health ministers (COAG) due to 'community concerns' attributed to a misinterpretation of Chiropractic manipulative techniques. It is not known how the two years of age limit was derived in June 2024, as no evidence was cited. Board chairman Dr Wayne Minter stated 'Following a request from health ministers in June, the Board has reinstated the interim policy on the spinal manipulation of children under two years of age, pending further consultation with ministers.' (4) The authors could not locate where the 'aged 2 years' limit-advice, nor any evidence that may have been published earlier in any CBA statement. Claims in the SCV Review that there was little evidence to support the involvement of Chiropractors in the limited range of non-musculoskeletal conditions that were studied. (SCV p24) We produce examples of evidence which tend to contradict such claims of limited evidence. **Objective:** It would seem that the SCV recommendation has been misinterpreted by health authorities and reflected incorrectly by the media, that a ban on manipulating the spine of under 12-year-old children was recommended and implemented. The recommendation stated 'Spinal manipulation, as defined in Section 123 of National Law, should not be provided to children under 12 years of age'. (SCV p 2) This statement did not advocate a ban as it recommended only that treatment should not be provided 'for the management of the following conditions' (p 6), as it claimed there was 'weak' evidence to substantiate it. It was not stated that spinal manipulation should not be administered due to harm. **Method:** A critical analysis of the SCV Review was conducted. A search of The Index to Chiropractic Literature was undertaken with key words placed in the All Fields search box. A PubMed search was also undertaken with emphasis on the European medical literature and on the limited number of Chiropractic journals listed on the PubMed portal. **Review:** The SCV Review states: 'Spinal manipulation, as defined in section 123 of National Law, should not be provided to children under 12 years of age, by any practitioner, for general wellness or for the management of the following conditions: developmental and behavioural disorders, hyperactivity disorders, autism spectrum disorders, asthma, infantile colic, bedwetting, ear infections, digestive problems, headache, cerebral palsy and torticollis'. (p 6) We challenge the narrow term of reference of this study by Cochrane Australia as it denied many studies and clinical reports which would have been applicable under different terms. And we note that other manipulative techniques are available that fall outside Section 123. **Summary:** The misinterpretation of the findings of the SCV Review that manipulation of children was banned led to misconceptions being dispersed though the media and community. The recommendation was addressed to all manipulative professions, and was applicable to the treatment of certain conditions. There was no evidence of prior serious adverse events in Australia to justify the falsely claimed ban on spinal manipulation of children under 12 years of age. In additional research, the SCV Review claimed there was insufficient evidence for spinal manipulation to address certain disorders. It omitted to state that it may be appropriate for spinal manipulation to address and manage certain symptoms associated with these conditions, patient preference and patient demand, as well as the many clinical studies that were supportive of this model of care. **Conclusion:** Given the volume of other forms of evidence that are available for specified conditions, more appropriate research reporting should be implemented on such matters. Such a discrepancy raises the question as to the particular selection of evidence cited in the SCV Review. Claims that there was a ban placed on cervical spinal manipulation of children due to harm are grossly inaccurate. Claims that such a ban applied to the whole spine of children under 12 are also inaccurate. It is maintained here that the term 'should not' is not a ban. Large sections of the media have been irresponsible and misleading in the inaccurate reporting of this matter. In doing so, a false image is generated which in turn, plays into the hands of the uninformed and monopolistic critics. Claims of a lack of evidence supporting aspects of the Chiropractic model are challenged depending where and in what sources one conducts research. There is a noted absence of evidence of serious harm through spinal manipulation by Chiropractors, on children in Australia. As such, the Safer Care Victoria Review is dismissed as a misleading anomaly. The motive of the Review would seem to have been compromised by the apparent inconsistencies, contradictions, and ambiguities as well as what would appear to be an absence of neutrality of input.

Febrile Seizures and School Performance

Dreier JW, Trabjerg BB, Wimberley T, Feenstra B, Christensen J.
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Abstract

Importance: Febrile seizures affect 2% to 5% of children and are associated with substantial parental distress and concerns about the child's long-term cognitive development. **Objective:** To examine the association between febrile seizures and school performance as measured by standardized tests. **Design, Setting, and Participants:** This is a nationwide register-based cohort study of children born in Denmark (1997-2009) who participated in the Danish National School Test Program from 2010 to 2019 (ages 7-17 years). Data were analyzed from March 2025 to June 2026. **Exposure:** Children with hospital contacts for febrile seizures identified through the Danish National Patient Register. **Main Outcomes and Measures:** The primary outcome was performance on norm-based standardized reading (grades 2, 4, 6, and 8) and mathematics (grades 3, 6, and 8) tests, scored as national percentiles (scale, 1-100). Adjusted differences in mean scores were estimated using linear regression. **Results:** Of 672,119 children (344,664 boys [51.3%]; 327,455 girls [48.7%]) participating in testing, 26,173 (3.9%) with a history of febrile seizures were identified. Combined test scores were marginally lower in children who experienced febrile seizures (108,265 tests; mean score, 54.7 points; 95% CI, 54.6 to 54.9 points) than in those who did not (2,684 629 tests; mean score, 55.8 points; 95% CI, 55.7 to 55.8 points), corresponding to an adjusted mean difference of -0.4 point (95% CI, -0.7 to -0.2 point). The difference was slightly more pronounced in girls (-0.7 point; 95% CI, -1.1 to -0.3 point) than in boys (-0.2 point; 95% CI, -0.5 to 0.2 point). School test performance declined with increasing number of febrile seizure—related hospital contacts, from -0.1 point (95% CI, -0.4 to 0.2 point) for those with 1 contact to -5.8 points (95% CI, -9.1 to -2.4 points) for those with 7 or more contacts. Epilepsy occurred more frequently in children with a history of febrile seizures (838 of 26,173 children [3.2%]) than in those without (5600 of 645,946 children [0.9%]), and was associated with substantially larger test score differences (children with febrile seizures and epilepsy vs children with neither, -7.2 points; 95% CI, -8.7 to -5.7 points). Test scores were also marginally lower in children with febrile seizures compared with their unaffected siblings (-0.6 point; 95% CI, -1.0 to -0.3 point). **Conclusions and Relevance:** In this cohort study of more than 26 000 children with febrile seizures, school performance was generally comparable to that of their peers, but a smaller subset (eg, children who had recurrent hospital contacts with febrile seizures or who developed epilepsy) were at risk of poorer academic outcomes and may benefit from additional educational support.

Hypertensive Disorders of Pregnancy and Incident Dementia

Seong JS, Park JY, Kim H, Kim SY.
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doi:10.1001/jamanetworkopen.2026.35819.

Abstract

Importance: Hypertensive disorders of pregnancy (HDPs) are established markers of later-life cardiovascular disease, but their association with dementia remains uncertain. **Objective:** To investigate whether HDPs are associated with incident dementia in a nationwide population-based cohort with more than 2 decades of follow-up. **Design, Setting, and Participants:** This retrospective cohort study used the Korean National Health Insurance Service database to identify females aged 16 years or older who delivered between January 1, 2002, and December 31, 2005, and followed up through December 31, 2024. Statistical analyses were conducted between October 2025 and May 2026. **Exposures:** HDPs were defined as gestational hypertension, preeclampsia, HELLP (hemolysis, elevated liver enzymes, low platelet count) syndrome, or eclampsia. **Main Outcomes and Measures:** The primary outcome was incident dementia, including Alzheimer disease and vascular dementia. Cox proportional hazards regression models estimated hazard ratios (HRs) and 95% CIs. **Results:** Among 1 370 485 females (mean [SD] age, 29.2 [3.9] years), 28 747 (2.1%) experienced HDPs. The cumulative incidence of dementia was higher among females with HDPs than among those without HDPs (7.2 vs 2.8 per 10 000 females; $P < .001$), as was the incidence density of dementia (3.00 vs 1.05 per 100 000 person-years; $P < .001$). In model 1, HDPs were associated with an increased risk of incident dementia after adjustment for baseline maternal, socioeconomic, and obstetric factors (adjusted HR, 1.96; 95% CI, 1.19-3.23). In model 2, after additional adjustment for postdelivery hypertension, diabetes, myocardial infarction, and stroke, the association was attenuated and was no longer statistically significant (adjusted HR, 1.15; 95% CI, 0.70-1.91). **Conclusions and Relevance:** In this cohort study, HDPs were associated with an increased risk of incident dementia after adjustment for baseline maternal, socioeconomic, and obstetric factors. However, this association was no longer statistically significant after additional adjustment for postdelivery vascular and metabolic conditions. Given the small number of dementia events among females with HDPs, these findings should be interpreted cautiously. These findings suggest that HDPs may serve as an early-life marker of long-term neurovascular vulnerability.

Prepregnancy Diet Quality Index and Adverse Pregnancy Outcomes

Bharmal U, Saade G, Greenland P, et al.
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Introduction: Adverse pregnancy outcomes (APOs) are a major cause of maternal and neonatal morbidity. Preconception diet quality is associated with APO risk, but prior pregnancy-related indices had notable limitations. We developed the Prepregnancy Dietary Quality Index (PreP-DQI) to assess its association with APOs and cardiometabolic health. **Methods:** This cohort study used data from the Nulliparous Pregnancy Outcomes Study Monitoring Mothers-to-Be (NuMoM2b) and the NuMoM2b-Heart Health Study (NuMoM2b-HHS), excluding individuals who delivered before 23 weeks of gestation, had fetal anomalies, missing dietary data, or had implausible caloric intake (below 1st percentile or above 99th percentile). All participants in the original studies provided written informed consent. This analysis was exempted from institutional review board approval at Old Dominion University as the dataset is deidentified, and followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) reporting guideline. Preconception diet was assessed using the Block/Bodnar 2010 food frequency questionnaire (FFQ), self-administered at 6 to 13 weeks of gestation during NuMoM2b enrollment (2010-2013). The PreP-DQI was developed using the 2020-2025 US Department of Agriculture (USDA) guidelines, which consisted of 23 adequacy and 4 moderation components, each scored from zero to 5. The final PreP-DQI was scored from zero to 100, with higher scores indicating healthier diets (eAppendix 1 in Supplement 1). The primary outcome was a composite of APOs, defined as occurrence of one or more of the following: hypertensive disorders of pregnancy (HDP), preterm births, small for gestational age (SGA), stillbirth, or gestational diabetes (eAppendix 2 in Supplement 1). Secondary outcomes included first-trimester cardiometabolic biomarkers (eTable in Supplement 1). Internal consistency of the PreP-DQI was assessed using Cronbach a. Individuals were divided into quartiles based on PreP-DQI scores (Q1 [least healthy diet] to Q4 [healthiest diet]). Energy-adjusted food group and nutrient intakes (per 1000 kcal) were assessed across quartiles using linear trend tests to evaluate diet quality and dose-response relationships. Missing outcome and covariate data were handled by multiple imputations. Adjusted relative risks (aRRs) with 95% CIs were calculated using modified Poisson regression with robust variance, with Q1 as reference, adjusting for maternal age, body mass index, race (self-identified with categories including Asian, Hispanic, non-Hispanic Black, non-Hispanic White, and other), employment, marital status, education, insurance type, energy intake per day, exercise (MET-hrs) during the first trimester, and smoking before pregnancy. E-values were calculated for statistically significant associations to quantify unmeasured confounding. In the HHS cohort, log-transformed biomarkers were modeled using linear regression, adjusting for the same covariates as the primary analysis, with adjusted P value obtained from quartile entered as an ordinal score. The threshold for significance was $P < .05$ in 2-sided tests. Statistical analyses were conducted using R version 4.4.2 (R Project for Statistical Computing). **Results:** A total of 7551 (75.2%) individuals from the nuMoM2b cohort met eligibility criteria for this analysis (mean [SD] age, 27.3 [5.5] years; 822 Black [10.9%], 1254 Hispanic [16.6%], 4795 White [63.5%]), including 3520 (46.6%) in the HHS cohort. Higher PreP-DQI quartiles were associated with significantly older age, lower BMI, White or Asian race, higher education, marriage, employment, commercial insurance, higher income, lower prevalence of smoking tobacco before pregnancy, greater total energy intake, and greater exercise during the first trimester. The mean (SD) PreP-DQI score was 66.0 (9.4). The PreP-DQI score demonstrated high internal consistency among its component measures (Cronbach a= 0.93). Across PreP-DQI quartiles, intake of adequacy components increased significantly (except dairy and vitamin D), whereas intake of most moderation components decreased significantly (except sodium). Compared with individuals in Q1, individuals in Q3 had lower risk preterm birth (aRR, 0.76; 95% CI, 0.59-0.98; E-value: 1.96) and individuals in Q4 had lower risks of APOs (aRR, 0.77; 95% CI, 0.66-0.89; E-value, 1.92), preterm birth (aRR, 0.73; 95% CI, 0.55-0.97; E-value, 2.08), and HDP (aRR, 0.77; 95%CI, 0.62-0.95; E-value, 1.92) (Figure). In complete case analysis, compared with individuals in Q1, individuals in Q4 had lower risks of APO (aRR, 0.76; 95% CI, 0.65-0.89), preterm birth (aRR, 0.74; 95% CI, 0.55-1.00), and HDP (aRR, 0.77; 95% CI, 0.62-0.95). **Discussion:** In this cohort of nulliparous individuals, higher PreP-DQI scores were associated with lower risks of APOs, particularly preterm birth and HDP, underscoring the importance of assessing the overall preconception diet quality using a composite measure that incorporates both dietary adequacy and moderation across whole foods and nutrients. Dietary intake was self-reported using a validated FFQ and may be subject to recall and reporting bias. The Block/Bodnar 2010 FFQ was the pregnancy-adapted instrument administered during nuMoM2b enrollment (2010-2013), predating the Modern Block 2014 FFQ. Also, there is a possibility of a potential selection bias, as individuals with missing dietary and biomarker data were excluded. Thus, further validation of PreP-DQI in more diverse populations is warranted. The association between higher PreP-DQI scores and a healthier first-trimester cardiometabolic profile provides a biologic plausibility for these findings, highlighting the role of preconception diet quality.

Determining undergraduate pediatric chiropractic competencies and entrustable professional activities: A mixed-method study
Aurélie M Marchand
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doi:10.7899/JCE-24-9.

ABSTRACT
Objective: This study aimed to determine an evidence-based, common, undergraduate, pediatric competency framework specific to the chiropractic profession through competencies and entrustable professional activities (EPAs). **Methods:** A pragmatic, exploratory, mixed-methods design was implemented to specify competencies and EPAs through grounded theory. Sequentially, 3 nominal group techniques were conducted. The results of a systematic literature review led to a curriculum enrichment process. A survey instrument was methodically developed and administered to 321 participants. Thematic analysis was used to write the curriculum, which resulted from this mixed-methods process. **Results:** The undergraduate pediatric chiropractic curriculum framework consisted of 5 EPAs, 12 aggregate domains, 53 competency domains, and 393 items. The overall agreement with the curriculum was 90.0% by UK stakeholders. A total of 236 competencies emerged from the nominal group techniques, rising to 393 after curriculum enrichment. The curriculum reached data saturation, and no additional items were identified during the survey. **Conclusion:** Undergraduate chiropractic pediatric competencies and EPAs were created. They align to specify educational outcomes based on stakeholders' input and accreditation standards. This study also indicates that literature reviews could be performed during curricular design processes to reach earlier data saturation.

Birth trauma, vertebral subluxation, feeding dysfunction and early infant health challenges: A retrospective analysis of 145 infants under chiropractic care
Dorough A. Alcantara Joel
J Pediatr Matern & Fam Health - Chiropr. 2026 Jul;2026():25-45
https://vertebralsubluxationresearch.com/2026/06/03/1886-a-retrospective-file-review-of-infants-presenting-for-chiropractic-care-in-a-single-practitioner-practice/.

ABSTRACT/NOTES:
Objective: To describe the clinical characteristics of infants 0—12 months of age presenting for chiropractic care in a single-practitioner practice, with particular attention to presenting complaints, pregnancy and birth history, labor and delivery factors, and examination findings associated with birth stress, feeding dysfunction, and cervico-cranio-mandibular subluxation patterns. **Methodology:** A 1-year retrospective file review was performed of patient files of infants 0-12 months of age presenting for care at a single chiropractor practice. Patient socio-demographic information (i.e., age, gender) and clinical information (i.e., presenting complaints, maternal pregnancy and labor history, examination findings) were obtained from a retrospective file review. Statistical analysis utilized descriptive statistics and chi-square test of independence. This study was approved by the Institutional Review Board of Life University (Marietta, GA, USA). **Results:** A total of 145 infant patient files met the inclusion criteria. The infants had a mean age of 2.21 months (SD=2.34) and included 75 males and 70 females. Breastfeeding difficulty was the most common presenting complaint, reported in 113 infants (77.93%), followed by torticollis in 82 infants (56.55%), posterior tongue-tie diagnosis in 79 infants (54.48%), gassiness in 53 infants (36.55%), plagiocephaly in 40 infants (27.59%), and infantile colic in 38 infants (26.21%). Maternal and birth histories commonly included prolonged labor, extended pushing, recumbent delivery position, Pitocin use, epidural anesthesia, malpresentation, and malposition. Examination findings frequently included cervical muscle hypertonicity, cervical joint edema, head tilt and/or rotation, facial wincing with palpation, digastric muscle restriction/hyoid elevation, TMJ dysfunction, and cranial asymmetry. Taken together, the findings demonstrated a pattern of presenting complaints, birth stress indicators, and physical examination findings involving the cervico-cranio-mandibular complex. **Conclusion:** We performed a retrospective file review of infants presenting for care in a single practitioner chiropractic practice. Our findings revealed infants commonly presented with chief complaints (i.e., breastfeeding difficulties, plagiocephaly, torticollis) associated with birth stress, strain or trauma. Chiropractors should be vigilant in their examination and care approaches to address subluxations to the cervico-cranio-mandibular complex. We support continued efforts to characterize infants and children presenting for chiropractic care.

Keywords: pediatrics, pregnancy, infants, chiropractic, subluxation, birth trauma, retrospective file review.