

Barriers to implementing a reporting and learning patient safety system.

Pediatric Chiropractic Perspective.

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ABSTRACT

A reporting and learning system is a method of monitoring the occurrence of incidents that affect patient safety. This cross-sectional survey asked pediatric chiropractors about factors that may limit their participation in such a system. The list of potential barriers for participation was developed using a systematic approach. All members of the 2 pediatric councils associated with US national chiropractic organizations were invited to complete the survey (N = 400). The cross-sectional survey was created using an online survey tool (REDCap) and sent directly to member emails addressed by the respective executive committees. Of the 400 potential respondents, 81 responded (20.3%). The most common limitations to participating were identified as time pressure (96%) and patient concerns (81%). Reporting and learning systems have been utilized to increase safety awareness in many high-risk industries. To be successful, future patient safety studies with pediatric chiropractors need to ensure these barriers are understood and addressed.

Key Words: pediatric, doctor of chiropractic, spinal manipulation, patient safety

Attitudes toward chiropractic.

A Survey of Canadian Obstetricians.

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Key Words: chiropractic, low back pain, complementary therapies, manipulation, spinal manipulation, obstetric, pregnancy

ABSTRACT

We assessed the attitudes of Canadian obstetricians toward chiropractic with a 38-item cross-sectional survey. Ninety-one obstetricians completed the survey, for a response rate of 14% (91 of 659). Overall, 30% of respondents held positive views toward chiropractic, 37% were neutral, and 33% reported negative views. Most (77%) reported that chiropractic care was effective for some musculoskeletal complaints, but 74% disagreed that chiropractic had a role in treatment of non-musculoskeletal conditions. Forty percent of respondents referred at least some patients for chiropractic care each year, and 56% were interested in learning more about chiropractic care. Written comments from respondents revealed concerns regarding safety of spinal manipulation and variability among chiropractors. Canadian obstetricians' attitudes toward chiropractic are diverse and referrals to chiropractic care for their patients who suffer from pregnancy-related low back pain are limited. Improved interprofessional relations may help optimize care of pregnant patients suffering from low back pain.

The use of chiropractic by special populations.

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ABSTRACT

Chiropractic care, known best for its emphasis on spinal manipulative therapy, is the most commonly used provider-based complementary and alternative medicine therapy in the United States. It has accumulated a substantial body of evidence for the management of low back pain and other musculoskeletal complaints in adults. However, at this time, fewer studies have focused on its use in different populations who may have different needs, risk factors, and response to treatment. Current recommendations and guidelines are based, for the most part, on research investigating chiropractic care for primarily white adults with uncomplicated nonspecific musculoskeletal complaints. This is congruent with current patterns of use of chiropractic. A recent population-based survey indicated that 93% of current chiropractic users are white, and 18% were 65 years or older. A 2015 report using National Health Interview Survey data found that only 3% of children ages 4 to 17 years had used chiropractic or osteopathic manipulation within the past year; infants were not included. However, it is important to investigate the use of chiropractic among special populations in order to gather evidence on whether the general findings may appropriately be extrapolated to diverse population groups. This issue presents articles addressing issues related to chiropractic care for special population groups.

Parent reports of exclusive breastfeeding after attending a combined midwifery and chiropractic feeding clinic in the United Kingdom.

A Cross-Sectional Service Evaluation.

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Key Words: children; complementary and alternative medicine

ABSTRACT

This service evaluation investigated an interdisciplinary allied professional health care strategy to address the problem of suboptimal breastfeeding. A clinic of midwives and chiropractors was developed in a university-affiliated clinic in the United Kingdom to care for suboptimal feeding through a multidisciplinary approach. No studies have previously investigated the effect of such an approach. The aim was to assess any impact to the breastfeeding dyad and maternal satisfaction after attending the multidisciplinary clinic through a service evaluation. Eighty-five initial questionnaires were completed and 72 (85%) follow-up questionnaires were returned. On follow-up, 93% of mothers reported an improvement in feeding as well as satisfaction with the care provided. Prior to treatment, 26% of the infants were exclusively breastfed. At the follow-up survey, 86% of mothers reported exclusive breastfeeding. The relative risk ratio for exclusive breastfeeding after attending the multidisciplinary clinic was 3.6 (95% confidence interval = 2.4-5.4).

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Core competencies of the certified pediatric doctor of chiropractic.

Results of a Delphi Consensus Process.

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Key Words: children, chiropractic, education

ABSTRACT

An outline of the minimum core competencies expected from a certified pediatric doctor of chiropractic was developed using a Delphi consensus process. The initial set of seed statements and substatements was modeled on competency documents used by organizations that oversee chiropractic and medical education. These statements were distributed to the Delphi panel, reaching consensus when 80% of the panelists approved each segment. The panel consisted of 23 specialists in chiropractic pediatrics (14 females) from across the broad spectrum of the chiropractic profession. Sixty-one percent of panelists had postgraduate pediatric certifications or degrees, 39% had additional graduate degrees, and 74% were faculty at a chiropractic institution and/or in a postgraduate pediatrics program. The panel were initially given 10 statements with related substatements formulated by the study's steering committee. On all 3 rounds of the Delphi process the panelists reached consensus; however, multiple rounds occurred to incorporate the valuable qualitative feedback received.

The influence of early infant-feeding practices on the intestinal microbiome and body composition in infants.

O'Sullivan A, Farver M, Smilowitz JT.

Nutr Metab Insights, 2015 Dec 16;8(Suppl 1):1-9. doi: 10.4137/NMI.S29530. eCollection 2015.

Keywords: Baby Friendly Hospital Initiative; Bifidobacterium; body composition; breastfeeding; formula-feeding; human

ABSTRACT

Despite many years of widespread international recommendations to support exclusive breastfeeding for the first six months of life, common hospitalfeeding and birthing practices do not coincide with the necessary steps to support exclusive breastfeeding. These common hospital practices can lead to the infant receiving formula in the first weeks of life despite mothers' dedication to exclusively breastfeed. Consequently, these practices play a role in the alarmingly high rate of formula-feeding worldwide. Formula-feeding has been shown to alter the infant gut microbiome in favor of proinflammatory taxa and increase gut permeability and bacterial load. Furthermore, several studies have found that formula-feeding increases the risk of obesity in later childhood. While research has demonstrated differences in the intestinal microbiome and body growth between exclusivelybreast versus formula-fed infants, very little is known about the effects of introducing formula to breastfed infants either briefly or long term on these outcomes. Understanding the relationships between mixed-feeding practices and infant health outcomes is complicated by the lack of clarity in the definition of mixed-feeding as well as the terminology used to describe this type of feeding in the literature. In this commentary, we highlight the need for hospitals to embrace the 10 steps of the Baby Friendly Hospital Initiative developed by UNICEF and the WHO for successful breastfeeding. We present a paucity of studies that have focused on the effects of introducing formula to breastfed infants on the gut microbiome, gut health, growth, and body composition. We make the case for the need to conduct well-designed studies on mixed-feeding before we can truly answer the question: how does brief or long-term use of formula influence the health benefits of exclusive breastfeeding?

The effectiveness of lactation consultants and lactation counselors on breastfeeding outcomes.

Patel S, Patel S.

J Hum Lact. 2015 Dec 7. pii: 0890334415618668. [Epub ahead of print]

ABSTRACT

Breastfeeding for all infants starting at birth and continuing until at least 6 months of age has been recommended by the World Health Organization and the American Academy of Pediatrics. The health benefits to infants and mothers have been demonstrated in many studies. Dedicated lactationspecialists may play a role in providing education and support to pregnant women and new mothers wishing to breastfeed to improve breastfeeding outcomes. The objective of this review was to assess if lactation education or support programs using lactation consultants or lactation counselors would improve rates of initiation and duration of any breastfeeding and exclusive breastfeeding compared with usual practice. A systematic literature review of the evidence was conducted using electronic databases. The review was limited to randomized trials and yielded 16 studies with 5084 participants. It was found that breastfeeding interventions using lactation consultants and counselors increase the number of women initiating breastfeeding (odds ratio [OR] for any initiation vs not initiating breastfeeding = 1.35; 95% confidence interval [CI], 1.10-1.67). The interventions improve any breastfeeding rates (OR for any breastfeeding up to 1 month vs not breastfeeding = 1.49; 95% CI, 1.09-2.04). In addition, there were beneficial effects on exclusive breastfeeding rates (OR for exclusive breastfeeding up to 1 month vs not exclusive breastfeeding = 1.71; 95% CI, 1.20-2.44). Most of the evidence would suggest developing and improving postpartum support programs incorporating lactation consultants and lactation counselors.

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Hydrolysed formula and risk of allergic or autoimmune disease: systematic review and meta-analysis.

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ABSTRACT

Objective: To determine whether feeding infants with hydrolysed formula reduces their risk of allergic or autoimmune disease. **Design:** Systematic review and meta-analysis, as part of a series of systematic reviews commissioned by the UK Food Standards Agency to inform guidelines on infant feeding. Two authors selected studies by consensus, independently extracted data, and assessed the quality of included studies using the Cochrane risk of bias tool.

Data sources: Medline, Embase, Web of Science, CENTRAL, and LILACS searched between January 1946 and April 2015. **Eligibility criteria for selecting studies:** Prospective intervention trials of hydrolysed cows' milk formula compared with another hydrolysed formula, human breast milk, or a standard cows' milk formula, which reported on allergic or autoimmune disease or allergic sensitisation. **Results:** 37 eligible intervention trials of hydrolysed formula were identified, including over 19 000 participants. There was evidence of conflict of interest and high or unclear risk of bias in most studies of allergic outcomes and evidence of publication bias for studies of eczema and wheeze. Overall there was no consistent evidence that partially or extensively hydrolysed formulas reduce risk of allergic or autoimmune outcomes in infants at high pre-existing risk of these outcomes. Odds ratios for eczema at age 0-4, compared with standard cows' milk formula, were 0.84 (95% confidence interval 0.67 to 1.07; $I^2=30\%$) for partially hydrolysed formula; 0.55 (0.28 to 1.09; $I^2=74\%$) for

extensively hydrolysed casein based formula; and 1.12 (0.88 to 1.42; I²=0%) for extensively hydrolysed whey based formula. There was no evidence to support the health claim approved by the US Food and Drug Administration that a partially hydrolysed formula could reduce the risk of eczema nor the conclusion of the Cochrane review that hydrolysed formula could prevent allergy to cows' milk. **Conclusion:** These findings do not support current guidelines that recommend the use of hydrolysed formula to prevent allergic disease in high risk infants.

Review registration: PROSPERO CRD42013004252

Unsolved mysteries of the human mammary gland: defining and redefining the critical questions from the lactation consultant's perspective.

Marasco LA.

J Mammary Gland Biol Neoplasia. 2014 Dec;19(3-4):271-88. doi: 10.1007/s10911-015-9330-7. Epub 2015 Jun 18.

ABSTRACT

Despite advances in knowledge about human lactation, clinicians face many problems when advising mothers who are experiencing breastfeeding difficulties that do not respond to normal management strategies. Primary insufficient milk production is now being acknowledged, but incidence rates have not been well studied. Many women have known histories of infertility, polycystic ovary syndrome, obesity, hypertension, insulin resistance, thyroid dysfunction, hyperandrogenism or other hormonal imbalances, while others have no obvious risk factors. Some present with obviously abnormal breasts that are pubescent, tuberous/tubular or asymmetric in shape, raising the question of insufficient mammary gland tissue. Other women have breasts that appear within normal limits yet do not lactate normally. Endocrine disruptors may underlie some of these cases but their impact on human milk production has not been well explored. Similarly, any problem with prolactin such as a deficiency in serum prolactin or receptor number, receptor resistance, or poor bioavailability or bioactivity could underlie some cases of insufficient lactation, yet these possibilities are rarely investigated. A weak or suppressed milk ejection reflex, often assumed to be psychosomatic, could be related to thyroid dysfunction or caused by downstream post-receptor pathway problems. In the absence of sufficient data regarding these situations, desperate mothers may turn to non-evidence-based remedies, sometimes at considerable cost and unknown risk. Research targeted to these clinical dilemmas is critical in order to develop evidence-based strategies and increase breastfeeding duration and success rates.

Clinical risk score for persistent postconcussion symptoms among children with acute concussion in the ED.

Roger Zemek, MD, Nick Barrowman, PhD, Stephen B. Freedman, MDCM, MSc, Jocelyn Gravel, MD, et al.

JAMA. 2016;315(10):1014-1025. doi:10.1001/jama.2016.1203.

ABSTRACT

Importance: Approximately one-third of children experiencing acute concussion experience ongoing somatic, cognitive, and psychological or behavioral symptoms, referred to as persistent post-concussion symptoms (PPCS). However, validated and pragmatic tools enabling clinicians to identify patients at risk for PPCS do not exist. **Objective:** To derive and validate a clinical risk score for PPCS among children presenting to the emergency department. **Design, Setting, and Participants:** Prospective, multicenter cohort study (Predicting and Preventing Postconcussive Problems in Pediatrics [5P]) enrolled young patients (aged 5–<18 years) who presented within 48 hours of an acute head injury at 1 of 9 pediatric emergency departments within the Pediatric Emergency Research Canada (PERC) network from August 2013 through September 2014 (derivation cohort) and from October 2014 through June 2015 (validation cohort). Participants completed follow-up 28 days after the injury. **Exposures:** All eligible patients had concussions consistent with the Zurich consensus diagnostic criteria. **Main Outcomes and Measures:** The primary outcome was PPCS risk score at 28 days, which was defined as 3 or more new or worsening symptoms using the patient-reported Postconcussion Symptom Inventory compared with recalled state of being prior to the injury. **Results:** In total, 3063 patients (median age, 12.0 years [interquartile range, 9.2–14.6 years]; 1205 [39.3%] girls) were enrolled (n = 2006 in the derivation cohort; n = 1057 in the validation cohort) and 2584 of whom (n = 1701 [85%] in the derivation cohort; n = 883 [84%] in the validation cohort) completed follow-up at 28 days after the injury. Persistent postconcussion symptoms were present in 801 patients (31.0%) (n = 510 [30.0%] in the derivation cohort and n = 291 [33.0%] in the validation cohort). The 12-point PPCS risk score model for the derivation cohort included the variables of female sex, age of 13 years or older, physician-diagnosed migraine history, prior concussion with symptoms lasting longer than 1 week, headache, sensitivity to noise, fatigue, answering questions slowly, and 4 or more errors on the Balance Error Scoring System tandem stance. The area under the curve was 0.71 (95% CI, 0.69–0.74) for the derivation cohort and 0.68 (95% CI, 0.65–0.72) for the validation cohort. **Conclusions and Relevance:** A clinical risk score developed among children presenting to the emergency department with concussion and head injury within the previous 48 hours had modest discrimination to stratify PPCS risk at 28 days. Before this score is adopted in clinical practice, further research is needed for external validation, assessment of accuracy in an office setting, and determination of clinical utility.

Management of post-traumatic headaches in children and adolescents.

Joanne Kacperski, MD, Todd Arthur, MD

Headache 2016;56(1):36-48.

ABSTRACT

Traumatic brain injuries (TBI) occur in an estimated 475,000 children aged 0–14 each year. Worldwide, mild traumatic brain injuries (mTBI) represent around 75–90% of all hospital admissions for TBI. mTBI are a common occurrence in children and adolescents, particularly in those involved in athletic activities. An estimated 1.6–3.8 million sports-related TBIs occur each year, including those for which no medical care is sought. Headache is a common occurrence following TBI, reported in as many as 86% of high school and college athletes who have suffered from head trauma. As most clinicians who manage concussion and post-traumatic headaches (PTHs) can attest, these headaches may be difficult to treat. There are currently no established guidelines for the treatment of PTHs, especially when persistent, and practices can vary widely from one clinician to the next.

Suicidality and aggression during antidepressant treatment.

Systematic Review and Meta-Analyses Based on Clinical Study Reports.

Tarang Sharma, Louise Schow Guski, Nanna Freund, Peter C Gøtzsche;

BMJ 2016; 352 doi: <http://dx.doi.org/10.1136/bmj.i65> (Published 27 January 2016)

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ABSTRACT

Objective: To study serious harms associated with selective serotonin and serotonin-norepinephrine reuptake inhibitors. **Design:** Systematic review and meta-analysis. **Main outcome measures:** Mortality and suicidality. Secondary outcomes were aggressive behaviour and akathisia. **Data sources:** Clinical study reports for duloxetine, fluoxetine, paroxetine, sertraline, and venlafaxine obtained from the European and UK drug regulators, and summary trial reports for duloxetine and fluoxetine from Eli Lilly's website. **Eligibility criteria for study selection:** Double blind placebo controlled trials that contained any patient narratives or individual patient listings of harms. **Data extraction and analysis:** Two researchers extracted data independently; the outcomes were meta-analysed by Peto's exact method (fixed effect model). **Results:** We included 70 trials (64 381 pages of clinical study reports) with 18 526 patients. These trials had limitations in the study design and discrepancies in reporting, which may have led to serious under-reporting of harms. For example, some outcomes appeared only in individual patient listings in appendices, which we had for only 32 trials, and we did not have case report forms for any of the trials. Differences in mortality (all deaths were in adults, odds ratio 1.28, 95% confidence interval 0.40 to 4.06), suicidality (1.21, 0.84 to 1.74), and akathisia (2.04, 0.93 to 4.48) were not significant, whereas patients taking antidepressants displayed more aggressive behaviour (1.93, 1.26 to 2.95). For adults, the odds ratios were 0.81 (0.51 to 1.28) for suicidality, 1.09 (0.55 to 2.14) for aggression, and 2.00 (0.79 to 5.04) for akathisia. The corresponding values for children and adolescents were 2.39 (1.31 to 4.33), 2.79 (1.62 to 4.81), and 2.15 (0.48 to 9.65). In the summary trial reports on Eli Lilly's website, almost all deaths were noted, but all suicidal ideation events were missing, and the information on the remaining outcomes was incomplete. **Conclusions:** Because of the shortcomings identified and having only partial access to appendices with no access to case report forms, the harms could not be estimated accurately. In adults there was no significant increase in all four outcomes, but in children and adolescents the risk of suicidality and aggression doubled. To elucidate the harms reliably, access to anonymized individual patient data is needed.