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Introduction

Welcome to the *Queensland Child Protection Newsletter*. This newsletter is a joint initiative of the Child Protection and Forensic Medical Service of the Lady Cilento Children’s Hospital (LCCH) under Children’s Health Queensland and the Statewide Child Protection Clinical Partnership (SCPCP). This newsletter includes research updates and other relevant resources in support of best practice in Child Protection, and further serves a communication pathway for news and updates from the SCPCP.

Each monthly edition of this newsletter is also available via the *Child Protection Library Guide* at: http://cairns.health.qld.libguides.com/child-protection.

Access to links
Hold down the Ctrl key and clink on the link to access full text journal articles and abstracts. For full text articles not available via CKN, hospital staff can request document delivery via their designated library service.

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Research Update

Abusive Head Trauma

1. Beta-amyloid precursor protein and ubiquitin immunohistochemistry aid in the evaluation of infant autopsy eyes with abusive head trauma


PURPOSE: To investigate beta-amyloid precursor protein (beta-APP), ubiquitin, and glial fibrillary acid protein (GFAP) immunostaining as a diagnostic tool to aid in the discrimination between abusive head trauma and nonabusive head trauma in postmortem ocular histopathologic investigation. DESIGN: Retrospective cross-sectional study.

METHODS: Seventy-four eyes of 37 infants were studied for hemorrhage and immunohistochemical expression of beta-APP, ubiquitin, and GFAP in the retina and optic nerve. Infants were assigned to abusive head trauma or control groups, according to published criteria.

RESULTS: In the abusive head trauma group, positive beta-APP and ubiquitin immunostaining of the retina was significantly more likely to be found than in the control group, odds ratio (OR) 11.4, confidence interval (CI) 2.9-44.3; P < .001 and OR 8.8, CI 2.2-34.5; P = .002, respectively. Positive correlations were found between retinal expression of beta-APP and ubiquitin immunostaining and retinal hemorrhage. Vitreal hemorrhages, orbital fat hemorrhages, and macular folds could only be identified in abusive head trauma cases. Retinal hemorrhages were significantly more severe, occupied a larger proportion of the retina, and involved more retinal layers in abusive head trauma compared to controls (OR 2.7, CI 1.7-4.4; P < .001).

CONCLUSIONS: This study shows correlations between positive retinal beta-APP and ubiquitin immunostaining as a sign of axonal injury in abusive head trauma. Axonal injury is a useful pathologic feature that can be demonstrated in postmortem ocular investigation of deceased children using immunohistochemical staining for beta-APP and ubiquitin with a high OR for abusive head trauma when compared to controls.

2. Neuroimaging differential diagnoses to abusive head trauma


ABSTRACT: Trauma is the most common cause of death in childhood, and abusive head trauma is the most common cause of traumatic death and morbidity in infants younger than 1 year. The main differential diagnosis of abusive head trauma is accidental traumatic brain injury, which is usually witnessed. This paper also discusses more uncommon diagnoses such as congenital and acquired disorders of hemostasis, cerebral arteriovenous malformations and metabolic diseases, all of which are extremely rare. Diagnostic imaging including CT and MRI is very important for the distinction of non-accidental from accidental traumatic injury. [http://www.ncbi.nlm.nih.gov/pubmed/26718196](http://www.ncbi.nlm.nih.gov/pubmed/26718196)
3. Aspects of abuse: abusive head trauma


**ABSTRACT:** Abusive Head Trauma (AHT) is a form of child physical abuse that involves inflicted injury to the brain and its associated structures. Abusive Head Trauma, colloquially called Shaken Baby Syndrome, is the most common cause of serious or fatal brain injuries in children aged 2 years and younger. The American Academy of Pediatrics recommends the term Abusive Head Trauma, as opposed to Shaken Baby Syndrome, as the former term encompasses multiple forms of inflicted head injury (inertial, contact, and hypoxic-ischemic) and a range of clinical presentations and radiologic findings and their sequelae. Children diagnosed with AHT are 5 times more likely to die compared with accidentally head-injured children, yet signs and symptoms are not always obvious, and therefore the diagnosis can be overlooked. Therefore, the American Academy of Pediatrics has tasked pediatricians with knowing how and when to begin an evaluation of children with signs and symptoms that could possibly be due to AHT. Overall, a detailed history of present illness and medical history, recognition of physical and radiological findings, and careful interpretation of retinal pathology are important aspects of formulating the differential diagnoses and increasing or decreasing the index of suspicion for AHT.

4. Abusive head trauma and accidental head injury: a 20-year comparative study of referrals to a hospital child protection team


**AIM:** To describe children referred for suspected abusive head trauma (AHT) to a hospital child protection team in Auckland, New Zealand.

**METHODS:** Comparative review of demographics, histories, injuries, investigations and diagnostic outcomes for referrals under 15 years old from 1991 to 2010.

**RESULTS:** Records were available for 345 children. Referrals increased markedly (88 in the first decade, 257 in the second), but the diagnostic ratio was stable: AHT 60%, accidental or natural 29% and uncertain cause 11%. The probability of AHT was similar regardless of socio-economic status or ethnicity. In children under 2 years old with accidental head injuries (75/255, 29%) or AHT (180/255, 71%), characteristics of particular interest for AHT included no history of trauma (88/98, 90%), no evidence of impact to the head (84/93, 90%), complex skull fractures with intracranial injury (22/28, 79%), subdural haemorrhage (160/179, 89%) and hypoxic ischaemic injury (38/39, 97%). In children over 2 years old, these characteristics did not differ significantly between children with accidental head injuries (21/47, 45%) and AHT (26/47, 55%). The mortality of AHT was higher in children over 2 years old (10/26, 38%) than under 2 years (19/180, 11%).

**CONCLUSIONS:** The striking increase in referrals for AHT probably represents increasing incidence. The decision to refer a hospitalised child with a head injury for assessment for possible AHT should not be influenced by socio-economic status or ethnicity. Children over 2 years old hospitalised for AHT are usually injured by mechanisms involving impact and should be considered at high risk of death.
5. Elevated admission INR strongly predicts mortality in victims of abusive head trauma


BACKGROUND: Victims of abusive head trauma have poor outcomes compared to other injured children. There is often a delay in diagnosis as these young patients are unable to communicate with healthcare providers. These critically injured patients would benefit from early identification and therapy.

METHODS: We performed a retrospective review of our single hospital trauma registry from 2005-2014. All level 1 pediatric (age 0-17) trauma patients who sustained abusive head trauma were included. Exclusion criteria included: no admission coagulation studies, prehospital product transfusion, preexisting coagulation disorder or death upon arrival. Primary outcome was mortality; secondary outcomes were early blood transfusion and neurosurgical intervention. Univariate analysis included Fisher exact and Wilcoxon rank-sum testing; we then performed logistic regression modeling and calculated adjusted odds ratios (AOR) to control for known predictors of poor outcome including hypotension, hypothermia, acidosis, ISS, and Head AIS.

RESULTS: In 101 total subjects, 35% (n=35) had INR≥1.3 on admission. On univariate analysis, patients with coagulation dysregulation were more likely to have hypothermia, hypotension, acidosis, high ISS and low GCS (all p<0.05). There was no difference in age, anemia, and incidence of polytrauma. Overall mortality was 24.8% (n=25) which varied significantly based on admission INR (60% INR≥1.3 vs 6% INR>1.3, p<0.001). Patients with elevated INR were also more likely to have early PRBC transfusion (p=0.003) and neurosurgical intervention (p=0.011). In logistic regression analysis, admission INR was the strongest independent predictor of mortality with increased odds of 3.65 (p=0.045). Adjusted odds ratio after controlling specifically for hypotension, hypothermia and acidosis was 6.25 (p=0.006) and after controlling for head AIS and admission GCS the AOR=5.27 (p=0.007).

CONCLUSIONS: Admission INR≥1.3 strongly predicts mortality in abusive head trauma. These patients should be targeted for early aggressive interventions and monitoring with the goal of improving patient outcomes. Further study is warranted to investigate potential therapeutic targets in trauma-induced coagulation dysregulation.

Physical Abuse

1. A comparison of accidental and nonaccidental trauma: it is worse than you think


BACKGROUND: Child abuse, or nonaccidental trauma (NAT), is a major cause of pediatric morbidity and mortality, and is often unrecognized. Our hypothesis was that injuries due to accidental trauma (AT) and NAT are significantly different in incidence, injury, severity, and outcome, and are often unrecognized.

OBJECTIVE: Our aim was to carry out an examination of the differences between pediatric injuries due to AT and NAT regarding incidence, demographics, injury severity, and outcomes.

METHODS: A 4-year retrospective review of the Trauma Registry at Children's Medical Center Dallas, a large Level I pediatric trauma center, comparing incidence, age, race, trauma activation, intensive care unit (ICU) need, Injury Severity Score (ISS), and mortality between AT and NAT patients was carried out.

RESULTS: There were 5948 admissions, 92.5% were AT and 7.5% were NAT victims. The NAT patients were younger (1.8 +/- 3.3 years vs. 6.8 +/- 4.2 years for AT patients; p < 0.01), more often required an ICU stay (NAT 36.5% vs. 13.8% for AT patients; p < 0.0001), and had a higher ISS 14.0 +/- 9.7 vs. 7.5 +/- 7.2; p < 0.0001). The mortality rate in NAT was 8.9% vs. 1.4% for AT (p < 0.001). Of the 40 NAT patients who ultimately died, 17.5% were not initially diagnosed as NAT.

CONCLUSIONS: NAT victims differ significantly from the AT patients, with a greater severity of injury and a 6-fold higher mortality rate. Delayed recognition of NAT occurred in almost 20% of the cases. It is generally accepted that NAT is underestimated. Its increased mortality rate and severity of injury are also not well recognized compared to the typical pediatric trauma child.

2. Risk of re-reporting among infants who remain at home following alleged maltreatment


ABSTRACT: Maltreatment that begins during infancy is likely to be chronic in duration and developmentally consequential if the appropriate intervention is not delivered. Repeated reports of maltreatment may signal unmet service needs. This study prospectively followed infants who remained at home following an initial report of maltreatment to determine the rate of re-reporting within 5 years. Birth records for all children born in California in 2006 were linked to statewide child protection records through 2012; 5.2% (n = 29,135) of children were reported for abuse or neglect prior to age 1. Following an initial report, 81.9% of infants remained in the home, the majority (60.7%) of whom were re-reported within 5 years. The highest rate of re-reporting was observed among infants whose initial allegation was substantiated and who had a case opened for family maintenance services (69.1%). Infants whose initial allegation was not investigated had re-reporting rates that were equal to or higher than other infants remaining in the home without services. Findings highlight that most families with infants reported for maltreatment are not formally served through the child protection system. High rates of re-reporting underscore the challenge of delivering services that remedy

3. Characteristics of rib fractures in child abuse-the role of low-dose chest computed tomography


OBJECTIVES: Our aim is to describe the radiologic characteristics of rib fractures in clinically diagnosed cases of child abuse and suggest a complementary imaging for radiographically occult injuries in highly suspicious cases of child abuse.

METHODS: Retrospective analysis of initial and follow-up skeletal surveys and computed tomography (CT) scans of 16 patients younger than 12 months were reviewed after obtaining approval from our institutional review board. The number, location, displacement, and age of the rib fractures were recorded.

RESULTS: Out of a total 105 rib fractures, 84% (87/105) were detected on the initial skeletal survey. Seventeen percent (18/105) were seen only after follow-up imaging, more than half of which (11/18) were detected on a subsequent CT. Majority of the fractures were posterior (43%) and anterior (30%) in location. An overwhelming majority (96%) of the fractures are nondisplaced.

CONCLUSIONS: Seventeen percent of rib fractures analyzed in the study were not documented on the initial skeletal survey. Majority of fractures are nondisplaced and located posteriorly or anteriorly, areas that are often difficult to assess especially in the acute stage. The CT scan is more sensitive in evaluating these types of fractures. Low-dose chest CT can be an important imaging modality for suspicious cases of child abuse when initial radiographic findings are inconclusive. [http://www.ncbi.nlm.nih.gov/pubmed/26760828](http://www.ncbi.nlm.nih.gov/pubmed/26760828)

4. Predictors of increasing injury severity across suspected recurrent episodes of non-accidental trauma: a retrospective cohort study


BACKGROUND: Little is known about how the severity of injury changes with recurrent events of suspected non-accidental trauma (NAT). Our objective was to determine risk factors for escalating severity of injury in children with multiple events of suspected NAT.

METHODS: This retrospective longitudinal cohort study included children from a pediatric Medicaid accountable care organization with >/= 1 non-birth related episode containing an International Classification of Diseases, Ninth Revision, Clinical Modification or Current Procedural Terminology code for NAT or a skeletal survey between 2007 and 2011. Subsequent potential NAT events were defined as independent episodes with codes for either NAT, a skeletal survey, or injuries suspicious for abuse. Severity of injury was calculated using the New Injury Severity Score (NISS). Multivariable Cox proportional hazards regression modeling was used with results expressed as hazard ratios and 95% confidence intervals.
RESULTS: Of the 914 children with at least one suspected NAT event, 39% had at least one suspected recurrent NAT event; 12% had 2 events and 5% had ≥3 events during follow-up. Factors associated with an increased risk for a recurrent episode of suspected NAT with higher NISS were living in a rural area (1.69, 1.02-2.78, p = 0.04) and having an open wound (2.12, 1.24-3.62, p = 0.006), or superficial injury (2.28, 1.31-3.98, p = 0.004). In contrast, a greater number of injuries was associated with a decreased risk for a recurrent episode of suspected NAT with higher NISS (p < 0.0001).

CONCLUSIONS: Though limited by a lack of follow-up of children placed in out of home care, our results suggest that children with “minor” or less numerous injuries are either not reported to child protective services or not removed from the unsafe environment with either situation leading to subsequent events. The medical and child welfare systems need to better identify these potential victims of recurrent events.

Sexual Abuse

1. The national problem of untested sexual assault kits (saks): Scope, causes, and future directions for research, policy, and practice

*Campbell, R., et al. Trauma Violence Abuse Ahead of print [Epub 23/12/2015].*

**ABSTRACT:** Victims of sexual assault are often advised to have a medical forensic exam and sexual assault kit (SAK; also termed a “rape kit”) to preserve physical evidence (e.g., semen, blood, and/or saliva samples) to aid in the investigation and prosecution of the crime. Law enforcement are tasked with submitting the rape kit to a forensic laboratory for DNA (deoxyribonucleic acid) analysis, which can be instrumental in identifying offenders in previously unsolved crimes, confirming identity in known-offender assaults, discovering serial rapists, and exonerating individuals wrongly accused. However, a growing number of media stories, investigative advocacy projects, and social science studies indicate that police are not routinely submitting SAKs for forensic testing, and instead rape kits are placed in evidence storage, sometimes for decades. This review article examines the growing national problem of untested rape kits by summarizing current research on the number of untested SAKs in the United States and exploring the underlying reasons why police do not submit this evidence for DNA testing. Recommendations for future research that can guide policy and practice are discussed.


2. Aspects of abuse: commercial sexual exploitation of children


**ABSTRACT:** Commercial sexual exploitation of children (CSEC) and adolescents is a serious worldwide problem. It is, in essence, the sexual abuse of a minor for economic gain. In the United States, there is no uniform nationwide database to capture the incidence and prevalence of CSEC. Therefore, there is a great variation in the estimates, but the actual numbers are unknown. Given the clandestine nature of the practice, it is often underreported and underidentified. Healthcare providers will often encounter victims of commercial sexual exploitation due to mental
health, physical health, and sexual health consequences, and therefore should be knowledgeable in the signs of possible sexual exploitation. The aim of this article is to educate healthcare providers on how vulnerable children may become sexually exploited, the health consequences involved with sexual exploitation, how to better identify possible victims, and the medical evaluation of a victim of sexual exploitation.

3. Prevalence of child sexual abuse in the Nordic countries: A literature review

ABSTRACT: This review examined child sexual abuse in the Nordic countries focusing on prevalence rates and victims’ age and relationship to the perpetrator. The results show a prevalence of child sexual abuse (broadly defined) between 3-23% for boys and 11-36% for girls. The prevalence rates for contact abuse were 1-12% for boys and 6-30% for girls, while 0.3-6.8% of the boys and 1.1-13.5% of the girls reported penetrating abuse. The findings suggest an increased risk of abuse from early adolescence. In adolescence, peers may constitute the largest group of perpetrators. The results highlight the need for preventive efforts also targeting peer abuse. Future research should include cross-national and repeated studies using comparable methodology.


4. Helpfulness of rectoanal endosonography in diagnosis of sexual abuse in a child

BACKGROUND: Clinical importance of sexual abuse in children has rapidly expanded in recent years, but despite of it, the lack of medical signs in the vast majority of sexual abuse cases, makes it difficult to assess. Given that, owing to our prior experience in endosonography (EUS) of the anal canal in child with anorectal malformations, we wanted to test EUS as a diagnostic method of sexual abuse in a child.

PURPOSE: The purpose of our study is to present our experience in the use of anorectal EUS among children with suspected sexual abuse.

METHODS: We present 40 consecutive patients (34 boys and 6 girls, age: 10months-13years) recruited from April 2010 to December 2012, with suspected sexual abuse those made a transrectal EUS.

RESULTS: The procedure was well-tolerated in all patients without complications. Rectoanal EUS findings were normal in 27 patients and showed a partial interruption in the external anal sphincter in 8, scars in 2, double rail image in 2, and rectal wall hematoma in 1.

CONCLUSIONS: The interpretation of findings in children depends of historical, physical, and laboratory findings. We believe that anal EUS is another aid in the constellation of clinical factors that could help in diagnostic of sexual abuse.
5. Anal lesions presenting in a cohort of child gastroenterological examinations. Implications for sexual traumatic injuries


**ABSTRACT:** The purpose of this study was to describe the anal lesions found in children during a pediatric gastroenterology consultation when the reason for the complaint was related to a digestive disease. This prospective descriptive study included 100 children under 15 years of age over a 13-month period, consulting due to digestive symptoms. The children were under 8 years old (90%) and 25% were under 3.1 years old. Constipation was the most frequent reason for consultation (69%). Fifty-one anal lesions were observed, of which 58.8% were anal fissures, 15.7% were skin tags and 5.8% were venous congestions related to straining. Anal fissures and skin tags were located at the median line, according to the clock-face method in supine position. No child had more than two anal lesions. No anal dilatation, sphincter hypotonia, anal scars, anal lacerations or bruises were found. The two most common anal lesions were anal fissures and skin tags. These anal lesions were mainly observed at the median line and were due to constipation. No cases of multiple anal lesions were found in terms of common digestive diseases.

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**Emotional Abuse & Neglect**

1. The relationship between maternal childhood emotional abuse/neglect and parenting outcomes: A systematic review


**Access full text:**

**ABSTRACT:** This paper reviews the evidence concerning the association between reported maternal childhood experience of emotional abuse and/or neglect and subsequent parenting outcomes. Relevant studies were identified through a systematic search of four electronic databases using a pre-determined keyword search. Reference lists of included papers were reviewed and key authors in the field contacted to ascertain whether other papers were available. Twelve studies which met our eligibility criteria were included for review. Tentative support was found for a relationship between maternal childhood emotionally abusive/neglectful experiences and a range of adverse parenting outcomes, including increased parenting stress and maltreatment potential, lower empathy and greater psychological control. However, limitations within the research (e.g. small sample sizes, retrospective designs) reduce the confidence with which we can draw firm conclusions. Recommendations are offered for future research together with an outline of clinical implications arising from this review.
Outcomes

1. Does the impact of child sexual abuse differ from maltreated but non-sexually abused children? A prospective examination of the impact of child sexual abuse on internalizing and externalizing behavior problems


ABSTRACT: Child sexual abuse (CSA) continues to be a significant problem with significant short and long term consequences. However, extant literature is limited by the reliance on retrospective recall of adult samples, single-time assessments, and lack of longitudinal data during the childhood and adolescent years. The purpose of this study was to compare internalizing and externalizing behavior problems of those with a history of sexual abuse to those with a history of maltreatment, but not sexual abuse. We examined whether gender moderated problems over time. Data were drawn from the Longitudinal Studies of Child Abuse and Neglect (LONGSCAN) at ages 4, 6, 8, 10, 12, 14, and 16 (N=977). The Child Behavior Checklist was used to assess internalizing and externalizing problems. Maltreatment history and types were obtained from official Child Protective Services (CPS) records. Generalized Estimating Equations (GEE) were used to assess behavior problems over time by maltreatment group. Findings indicated significantly more problems in the CSA group than the maltreated group without CSA over time. Internalizing problems were higher for sexually abused boys compared to girls. For sexually abused girls internalizing problems, but not externalizing problems increased with age relative to boys. This pattern was similar among maltreated but not sexually abused youth. Further efforts are needed to examine the psychological effects of maltreatment, particularly CSA longitudinally as well as better understand possible gender differences in order to best guide treatment efforts.

2. Oxytocin receptor genetic and epigenetic variations: Association with child abuse and adult psychiatric symptoms


Access full text:

ABSTRACT: Childhood abuse can alter biological systems and increase risk for adult psychopathology. Epigenetic mechanisms, alterations in DNA structure that regulate the gene expression, are a potential mechanism underlying this risk. While abuse associates with methylation of certain genes, particularly those in the stress response system, no study to date has evaluated abuse and methylation of the oxytocin receptor (OXTR). However, studies support a role for OXTR in the link between abuse and adverse adult outcomes, showing that abuse can confer greater risk for psychiatric symptoms in those with specific OXTR genotypes. This study therefore sought to (a) assess the role of epigenetics in the link between abuse and psychopathology and (b) begin to integrate the genetic and epigenetic literature by exploring associations between OXTR genotypes and DNA CpG methylation. Data on 18 OXTR CpG sites, 44 single nucleotide polymorphisms, childhood abuse, and adult depression and anxiety symptoms were assessed in 393 African American adults (age = 41 +/- 12.8 years). Overall, 68% of genotypes were associated with methylation of nearby CpG sites, with a subset surviving multiple test correction. Child abuse associated with higher methylation of two CpG sites
yet did not survive correction or serve as a mediator of psychopathology. However, abuse interacted with CpG methylation to predict psychopathology. These findings suggest a role for OXTR in understanding the influence of early environments on adult psychiatric symptoms.

3. Children’s exposure to violence: The underlying effect of posttraumatic stress symptoms on behavior problems


ABSTRACT: In this study we investigated whether witnessing violence and violence victimization were associated with children's internalizing and externalizing behavior problems and examined the mediating role of posttraumatic stress (PTS) symptoms in these relationships. Secondary data analysis was conducted using 3 waves of data from the National Survey of Child and Adolescent Well-Being. Path analyses were conducted to test direct and indirect effects of violence exposure on behavior problems, using 2,064 children (ages 8-15 years) reported to Child Protective Services for maltreatment. Being a victim of violence in the home was directly associated with more internalizing (beta = .06, p = .007) and externalizing behavior problems (beta = .07, p = .002), whereas witnessing violence was not directly related to either internalizing (beta = .04, p = .056) or externalizing behavior problems (beta = .03, p = .130). PTS symptoms mediated the effects of witnessing violence and violence victimization on internalizing behavior problems (beta = .02, p = .002). Our findings suggest that PTS symptoms may be a mechanism underlying the association between violence exposure and internalizing behavior problems (R(2) = .23), underscoring the potential importance of assessing PTS symptoms and providing targeted trauma-focused interventions for children exposed to violence at home.


Intervention & Prevention

1. Treatment of Danish survivors of child sexual abuse-a cohort study


OBJECTIVE: To investigate the changes in psychological and social domains associated with treatment in survivors of child sexual abuse.

METHOD: Participants from four centers were assessed at baseline and were followed up after six and 12 months. The battery covered posttraumatic and general distress symptoms, attachment, coping styles, self-worth, and social support.

RESULTS: The estimated prevalence of Posttraumatic Stress Disorder (PTSD) was 78% at baseline; this rate declined to 40% after one year. There were no differences in outcome measures across the different centers or between the individual and group treatments. Half of the PTSD variation at 12 months was explained by four factors: education, avoidance attachment, emotional coping, and social support.

CONCLUSION: The findings in this study indicated a substantial reduction in mental health problems in survivors following 12 months of treatment and identified personality and social factors important for recovery.
2. The effect of VoorZorg, the Dutch nurse-family partnership, on child maltreatment and development: a randomized controlled trial


BACKGROUND: Child maltreatment is a great public health concern that has long-term mental and physical health consequences and can result in death. We studied the effect of a nurse home visiting program on child maltreatment among young disadvantaged families in The Netherlands. This study is the first to investigate the effects of this program outside of the United States.

METHODS: We conducted a single blind, parallel-group, randomized controlled trial that compared usual care with the nurse home visitation program, which began during pregnancy and continued until the children’s second birthdays, in 460 disadvantaged women who were pregnant for the first time and <26 years of age. The primary outcome was the existence of a report about the child from a child protecting services agency (CPS reports). Secondary outcome measures included home environment and child behavior.

RESULTS: Two hundred twenty-three participants were assigned to the control group, and 237 were assigned to the intervention group. Three years after birth, 19% of the children in the control group had a CPS report. The 11 percent of children in the intervention group with CPS files was significantly lower (relative risk 0.91, p-value 0.04). At 24 months, the intervention group scored significantly better on the IT-HOME. At 24 months after birth, the children in the intervention group exhibited a significant improvement in internalizing behavior (relative risk 0.56, p-value 0.04) but no evidence of a difference from the control group in externalizing behavior (relative risk 0.71, p-value 0.12).

CONCLUSION: The number of CPS reports for the intervention group was significantly lower than that of the control group. Additionally, the long-term home environments were improved and internalizing behaviors of the children were lower in the intervention group.

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Child Protection Professionals

1. The productivity of wh- prompts in child forensic interviews


ABSTRACT: Child witnesses are often asked wh- prompts (what, how, why, who, when, where) in forensic interviews. However, little research has examined the ways in which children respond to different wh- prompts, and no previous research has investigated productivity differences among wh- prompts in investigative interviews. This study examined the use and productivity of wh- prompts in 95 transcripts of 4- to 13-year-olds alleging sexual abuse in child investigative interviews. What-how questions about actions elicited the most productive responses during both the rapport building and substantive phases. Future research and practitioner training should consider distinguishing among different wh-prompts.

2. Imaging in suspected child abuse: necessity or radiation hazard?


ABSTRACT: Imaging has many uses, but in cases of suspected child abuse, radiographs and CT scans are vital in identifying fractures and head injury that may not be clinically obvious. There are growing concerns about the small but potential adverse effects of radiation, including cancer, in the paediatric population as a result of imaging. The vast majority of general paediatricians undertaking child abuse assessments request skeletal surveys and CT scans, subjecting children to significant amounts of radiation. Informed consent must be taken from parents for these procedures and therefore this paper aims to look at evidence of the dangers of radiation in children and raise awareness among paediatricians.

3. Gray cases of child abuse: Investigating factors associated with uncertainty


ABSTRACT: Research in child abuse pediatrics has advanced clinicians' abilities to discriminate abusive from accidental injuries. Less attention, however, has been paid to cases with uncertain diagnoses. These uncertain cases - the "gray" cases between decisions of abuse and not abuse - represent a meaningful challenge in the practice of child abuse pediatricians. In this study, we describe a series of gray cases, representing 17% of 134 consecutive children who were hospitalized at a single pediatric hospital and referred to a child abuse pediatrician for concerns of possible abuse. Gray cases were defined by scores of 3, 4, or 5 on a 7-point clinical judgment scale of the likelihood of abuse. We evaluated details of the case presentation, including incident history, patient medical and developmental histories, family social histories, medical studies, and injuries from the medical record and sought to identify unique and shared characteristics compared with abuse and accidental cases. Overall, the gray cases had incident histories that were ambiguous, medical and social histories that were more similar to abuse cases, and injuries that were similar to accidental injuries. Thus, the lack of clarity in these cases was not attributable to any single element of the incident, history, or injury. Gray cases represent a clinical challenge in child abuse pediatrics and deserve continued attention in research.

4. Inheriting your mother’s eyes, hair, and drug addiction: Protecting the drug-exposed newborn by criminalizing pregnant drug use


ABSTRACT: Despite the absence of statutory criminalization of drug use during pregnancy in the majority of states, states are increasingly recognizing that drug abuse is a massive economic and social problem. Tennessee is the first state to implement a statute that specifically addresses the issue of pregnant drug users by criminalizing those whose use harms their child. Because drug abuse may involve addiction in many cases, the statute provides a defense to those who take reasonable steps to seek help and get clean before the child is born. This Note examines the criminal
aspect and impact of drug use during pregnancy and proposes that each state adopt the Tennessee statue, while ensuring pregnant mothers access to drug treatment and assessment through drug courts. Drug use is illegal and drug use during pregnancy should be criminalized as well.

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5. Aspects of abuse: recognizing and responding to child maltreatment


**ABSTRACT:** Child maltreatment is a public health problem and toxic stress impacting at least 1 in 8 children by the age of 18 years. Maltreatment can take the form of physical and sexual abuse, neglect, and emotional maltreatment. While some children may experience only one form of maltreatment, others may survive multiple forms, and in some cases particularly complex forms of maltreatment such as torture and medical child abuse. When considering maltreatment, providers should be adept at obtaining a thorough history not only from the parent but when appropriate also from the patient. The most common form of child maltreatment is neglect, which encompasses nutritional and medical neglect, as well as other forms such as physical and emotional neglect. Talking with caregivers about stressors and barriers to care may give insight into the etiology for neglect and is an opportunity for the provider to offer or refer for needed assistance. Familiarity with injury patterns and distribution in the context of developmental milestones and injury mechanisms is critical to the recognition of physical abuse. While most anogenital exam results of child victims of sexual abuse are normal, knowing the normal variations for the female genitalia, and thereby recognizing abnormal findings, is important not only forensically but also more importantly for patient care. Pattern recognition does not only apply to specific injuries or constellation of injuries but also applies to patterns of behavior. Harmful patterns of behavior include psychological maltreatment and medical child abuse, both of which cause significant harm to patients. As health professionals serving children and families, pediatric providers are in a unique position to identify suspected maltreatment and intervene through the health care system in order to manage the physical and psychological consequences of maltreatment and to promote the safety and well-being of children and youth by making referrals to child protective services.

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6. Skeletal and radiological manifestations of child abuse: Implications for study in past populations

**Ross, A. H. and C. A. Juarez Clin Anat Ahead of print [Epub 28/12/2015].**

**ABSTRACT:** Child abuse in its various types such as physical, emotional, sexual, and neglect has been document throughout history. However, before the mid-twentieth century, inflicted injuries to children was overlooked in part because children were often viewed as property. According to the World Health Organization, 57,000 children were the victims of homicide in the year 2000. In this paper we present the skeletal and radiological manifestation of physical abuse and fatal neglect and provide recommendations to assess child maltreatment from past populations. Pediatric biomechanical factors and healing are discussed as it is important to keep in mind that children are not just small adults. Skeletal and radiological indicators of non-accidental or inflicted injuries are reviewed from the literature. Inflicted injuries are presented based on specificity to identify child abuse. In addition, skeletal indicators that could help assess fatal starvation are also reviewed and metabolic diseases are proposed as potential evidence of neglect. A recent child
homicide is presented and used to illustrate the difficulty in assessing child maltreatment. Present-day clinical child abuse protocols are used to provide recommendations to assess child abuse in a bioarchaeological context.


Reviews & Guidelines

1. The NICHD investigative interview protocol: A meta-analytic review


ABSTRACT: Systematic review and meta-analysis of literature were conducted examining the effectiveness of the National Institute for Child Health and Human Development Investigative Interview Protocol in improving the quality of child forensic interviews. Online databases were searched for journal articles published between the years 2000 and 2013. Measures of interview quality were the type of interviewer utterances and the amount of information provided by children. Five studies met criteria for inclusion in the meta-analysis. Weighted mean of the effect sizes was calculated for each outcome measure. Protocol interviews had more invitations (g = 1.60) and fewer option-posing (g = -.95) and suggestive prompts (g = -.63) than standard interviews. Children interviewed by the protocol provided more central details (g = .90) in response to invitations than controls. Meta-analyses of a subset of preschool children samples revealed that protocol interviews had more invitations (g = 1.46), fewer suggestive prompts (g = -.61), and fewer option-posing prompts (g = -1.05) than controls. Findings corroborate results from previous studies that suggested the benefits of the protocol on the interviewers' performance and on children's informativeness. However, protocol did not show the same performance with regard to preschool children.


2. A systematic review of longitudinal risk and protective factors and correlates for posttraumatic stress and its natural history in forcibly displaced children


BACKGROUND: Posttraumatic stress (PTS) results in significant distress or functional impairment. Prevalence studies report higher rates of PTS in forcibly displaced children (FDC). Current evidence deriving mainly from cross-sectional studies is unable to make causal attributions. Given rising rates of forcible displacement reported by the United Nations High Commissioner for Refugees (UNHCR) in 2014, there is increasing need to determine the best policies and practice for engaging mental health needs of FDC.

METHODS: This systematic review identifies (1) longitudinal risk and protective factors and correlates for PTS and (2) its natural history in FDC, contributing to research identifying vulnerable subgroups and malleable factors for PTS and understanding its natural history. No meta-analysis was conducted due to heterogeneity; results were analyzed through narrative synthesis.

RESULTS: Eleven longitudinal studies were identified. All but one were prospective cohort designs. They identified prevalence rates between 20% and 48.7% at baseline, 10% and 48.3% at 1 year (k = 7), 18% and 48% at 2-3 years (k = 2), 8% and 38% at 6 years (k = 2), and 35% at 12 years using nine measurement methods in seven independent
samples. Evidence from multiple associations supported the following risk factors: exposure to traumatic stressors or other stress, older age, and prior psychopathology. Evidence predominantly supported the stability of PTS with some decline.

CONCLUSION: While results should be interpreted with caution given small or unrepresentative samples, they suggest regular mental health screenings should be conducted for FDC, who are a vulnerable subgroup with variable onset and remission. Risk associations with prior psychopathology also suggest that screening upon arrival may be advisable for early intervention and prevention.


3. The influence of geographical and economic factors in estimates of childhood abuse and neglect using the Childhood Trauma Questionnaire: A worldwide meta-regression analysis

https://www.ckn.org.au

ABSTRACT: This multilevel meta-analysis examined the effects of geographical and economic factors on worldwide childhood maltreatment estimates measured by the Childhood Trauma Questionnaire (CTQ) short-form. The primary outcome extracted was continuous scores on the CTQ subscales - emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect - and total score. Geographical, economical and methodological variables were extracted for use as covariates in meta-regression models. A literature search identified 288 studies suitable for the CTQ total score analysis (N=59,692) and 189 studies suitable for maltreatment subtype analysis (N=44,832). We found that Europe and Asia were associated with lower CTQ estimates while South America presented the highest estimates among continents. Specifically, studies from China, Netherlands and United Kingdom presented the lowest maltreatment estimates. Furthermore, high-income countries presented lower CTQ physical neglect estimates in comparison to low- or middle-income countries, while per-capita gross domestic product of countries was negatively associated with childhood physical neglect estimates. Despite the influence of methodological covariates, these findings indicate that geographical and economic factors could influence variations of childhood maltreatment estimates around the world, particularly when assessed by a structured standardized questionnaire.

Case Reports

1. Amitriptyline poisoning of a baby: how informative can hair analysis be?

https://www.ckn.org.au

ABSTRACT: We reported a case of a 6-month-old baby girl who was hospitalized in the pediatric emergency for central nervous system disorders then coma. Toxicology analysis showed the presence of amitriptyline (AMI) and its metabolite nortriptyline (NOR) in blood and urine of the baby. Additional investigations suggested a shaken baby syndrome. Given the family context, a judge ordered hair tests for both the child and his parents to document drug exposure. A liquid
chromatography tandem mass spectrometric (LC-MS/MS) method was then developed to quantify AMI and NOR in hair. After decontamination and segmentation, 20 mg of hair was incubated overnight at 55 degrees C in methanol (MeOH). The LC-MS/MS method used an online solid phase extraction and the analysis was performed using two transitions per compound. The LOQ and LOD for the two compounds were estimated at 0.0075 ng/mg and 0.005 ng/mg respectively. All hair segments tested for both parents were negative. For the baby two strands of hair were collected one day after the acute intoxication for the first and 5 weeks later for the second. The first strand was not decontaminated before analysis to avoid losing specimen. The high and relatively homogenous concentrations of AMI (with a range of value from 6.65 to 9.69 ng/mg) and NOR (with a range of value from 7.12 to 8.96 ng/mg) measured suggested that contamination could have occurred. The analysis of the second strand after decontamination allowed to detect AMI and NOR in all hair segments. The obtained values varied between 0.54 and 1.41 ng/mg for AMI and between 1.26 and 4.00 ng/mg for NOR. These results supported the hypothesis of a chronic exposure during several months before hair collection with regular increase. However a single overdose could not be totally excluded. The interpretation of results must take into account the pharmacological and physiological parameters of hair of the children.

2. A rare case report on bilateral intertrochanteric fractures in a child following child abuse


ABSTRACT: Diagnosis of non-accidental injury needs careful history elicitation, proper examination and thorough workup including blood investigation and radiological assessment to avoid misdiagnosis or under diagnosis. Correct diagnosis and reporting would avoid possible similar incidents in the future. Four-year-old female child brought to our hospital by her mother with apparent history of fall from height. Following detailed examination and radiological assessment we suspected of child abuse. Child had multiple fractures in different stages of healing which included bilateral intertrochanteric fractures. Child was operated for bilateral intertrochanteric fractures which appeared relatively fresh compared to other old malunited fractures with open reduction and fixation with titanium elastic nailing and was immobilized by hip spica. Two months postoperatively, there was complete radiological union of fractures and child was being counseled by child psychologist.


3. Restoring safety: An attachment-based approach to clinical work with a traumatized toddler


ABSTRACT: This clinical case study explores the integration of infancy research, brain development, attachment theory, and models of infant-parent/child-parent psychotherapy to address the needs of abused and neglected young children placed in foster or adoptive homes. Traumatized children employ defensive strategies to survive when there is no "good enough" caregiver (D.W. Winnicott, , p. 94), and helping professionals can provide therapeutic experiences to develop or restore a child's sense of safety. With the case example of Anthony and his foster/adoptive parents, I illustrate how to manage and contain a traumatized child's terror, rage, and grief through therapeutic sessions with the parent and child together, and supportive parental guidance. I promote attention to the child's ability to self-integrate and
to regulate his own affect, and encourages secure-base parental responses that facilitate a child's shift toward secure attachment behavior.

Other

1. Foster parent training programmes for foster youth: a content review

**Benesh, A. S. and M. Cui Child Fam Soc Work Ahead of print [Epub 11/01/2016].**


ABSTRACT: Foster parent training is a well-recognized component of providing quality care in child welfare. Well-trained foster parents can improve placement stability, reduce behavioural problems and encourage successful reunification or adoption. A review of the foster parent training programmes can provide a better understanding of the current state of foster parenting training and inform future practice and policy-making. This review examined published and unpublished research on foster parent training conducted from 1970 to 2014 and provided an overview of the structure and content of 22 foster parent training programmes. Common patterns in the content and structure of foster parent training programmes are identified and discussed, highlighting trends towards multi-session in-service training with eclectic content. The development of new training programmes with strong theoretical grounding that train foster parents on specific behavioural skills is recommended.

2. Maternal and paternal filicide: Case studies from the Australian homicide project


ABSTRACT: Data drawn from the Australian Homicide Project were used to examine whether and how maternal and paternal filicide perpetrators differ in terms of motivations for filicide and childhood and adulthood adversities. In addition, key differences between filicide and non-filicide perpetrators were examined. Data were collected across a number of states and territories in Australia between 2010 and 2013 through interviews with 231 men and women convicted of murder or manslaughter. Of these participants, 14 had perpetrated filicide. Detailed information on the developmental background of the perpetrators, as well as motives and situational contexts of the homicide incidents, was gathered through the interviews. Findings from the current study reveal some important gender differences among filicide perpetrators. For example, filicidal fathers are more likely to perpetrate accidental filicide, and to report unemployment, alcohol and drug problems and previous engagement in child abuse, while filicidal mothers are more likely to perpetrate altruistic or neglectful filicide, and to report mental health problems. In addition, male filicide perpetrators report a greater number of adversities compared to male non-filicide perpetrators, while female filicide perpetrators display fewer adversities compared to their non-filicide counterparts.

**Access full text:** [http://ac.els-cdn.com/S0145213415003786/1-s2.0-S0145213415003786-main.pdf?_tid=a965f604-e5ab-11e5-b077-00000aacid360&acdnat=1457496295_eef3f381268804f066f54ae6d0b278](http://ac.els-cdn.com/S0145213415003786/1-s2.0-S0145213415003786-main.pdf?_tid=a965f604-e5ab-11e5-b077-00000aacid360&acdnat=1457496295_eef3f381268804f066f54ae6d0b278)

**ABSTRACT:** Placement in out-of-home care (OHC) indicates serious childhood adversity and is associated with multiple adverse outcomes. Each year 0.5% of children in England live in OHC but evidence is lacking on the cumulative proportion who enter during childhood and how this varies over time. We measured the proportion of children born between 1992 and 2011 who entered OHC, including variation in rates of entry over time, and explored the determinants of these changes using decomposition methods. We also described changes in placement type, duration and stability. By age 18, 3.3% of children born 1992-94 entered OHC. This proportion varied by ethnicity (1.6% of White vs. 4.5% of Black children born 2001-03 entered OHC by age 9, 95% CI [1.5-1.7] and [4.4-4.6], p<0.001) and increased over time (0.8% of children born 2009-11 entered OHC by age 1 vs. 0.5% born 1992-94, 95% CI [0.7-0.9] and [0.4-0.6], p<0.001). This overall increase was driven primarily by the increased rate of entry among White children and not by concurrent changes in the population's ethnic composition. The proportion of children entering OHC in England is increasing and characteristics of the care they receive are changing with earlier intervention and longer, more stable placements. Further research is required to understand the reasons for these changes in practice and whether they are cost-effective, sustainable, and improve outcomes for children and society.

4. The contemporary politics of child protection: Part two (the BASPCAN Founder's Lecture 2015)


**ABSTRACT:** This paper is based on the Founder's lecture of the same title presented at the BASPCAN Congress, ‘New Directions in Child Protection and Well-being’, in April 2015 in Edinburgh. In a very schematic way, it attempts to critically review changes in child protection policies in the UK since the first BASPCAN Congress in 1991. It argues that while there are similarities, there are also important differences. The nature of the problems to be addressed has become both broader and more complex and this is reflected in developments in policy and practice. At the same time, the challenges for child protection have become increasingly politicised such that the narrative of professional and system failure has become more dominant and pervasive. This has the effect of deflecting political and policy attention from the size and nature of the social problems to be addressed. The paper concludes by considering the most recent developments and their possible impact including the statutory Independent Inquiry into Child Sexual Abuse chaired by Justice Lowell Goddard.

5. Who returns home? Study on placement outcomes of Flemish foster children


**ABSTRACT:** Until recently, Flemish family foster care was a temporary measure with as its most important goal, the reunification of the foster child with the birth parents. To date, nothing is known on the number of reunifications, nor has
any study been undertaken into the factors (child, parent, foster parent and foster care process) associated with reunification. Case files of 127 foster children who exited foster care in 2007 were analysed. Dependent variables were type of foster care placement outcome (reunification, successful placement without reunification or breakdown) and place of residence after placement ending (with birth parents, extended family, foster family, residential care or living independently). After placement ending, only 40% of foster children went living with their parents, including foster children who were reunified (26%) and foster children who moved to their parents after a placement breakdown (14%). Characteristics of the foster children, and in particular absence of problem behaviour, were associated mainly with a return home. This may indicate that too much attention is paid to the functioning of the foster child and too little to improving the competencies of the parents and the (future) home environment.
References


38. Myers, J.E., What is the meaning of "reasonable medical certainty"? Your guess is as good as mine. Child Abuse Negl, 2015. 50: p. 228-31.


