CAPNET: Improving Child Abuse Care and Outcomes Through Multicenter Research

Statement of Problem

Child physical abuse is a significant source of childhood morbidity, mortality and preventable health care costs. Each year, child protective service (CPS) agencies determine that more than 120,000 children in the U.S. have been victims of physical abuse, however, true incidence is likely much higher as these data have been shown to capture only a fraction of cases.

The health care costs associated with child abuse are staggering due to increased injury severity, longer lengths of hospital stays, higher fatality rates and worse outcomes compared to children with accidental injuries. Even greater are the long-term costs and trauma associated with increased rates of risky health behaviors, mental illness, chronic illness and early mortality among abuse survivors.

In addition, research shows disparities in the rates of evaluation for and diagnosis of physical abuse based on a patient's racial background and/or socioeconomic status. Recent publications indicate Child Abuse Pediatrics (CAP) physicians are not immune from implicit biases that influence diagnostic decision-making in cases of possible physical abuse. These disparities raise concern for both under-evaluation and under-diagnosis in some groups of children, as well as over-evaluation and over-diagnosis in other groups of children. Research has also demonstrated variation across hospitals in clinical practices to identify and evaluate victims of physical abuse. CAP research capacity has been relatively limited, given the impact of abuse on child health and well-being.

Description

In response to this deficit of resources and investigators in the field of child abuse research, the Child Abuse Pediatrics Network (CAPNET) was established to facilitate robust, multicenter research. It is a rich data resource that can be utilized by investigators to perform child abuse-related research, making the care of potentially abused children and their families more effective, safe and fair.

Children's Hospital of Philadelphia (CHOP), which serves as the Data Coordinating Center, along with the two other main network hubs (University of Utah and Children's Hospital of Colorado) created a common data collection form with uniform definitions that is used to codify all consultations for concern of child physical abuse at each participating site. Since launching in February 2021, this centralized database has served as a secure space for data collection, storage, quality assurance and sharing. Details on CAPNET data collection and quality assurance processes can be found here. CAPNET currently has eleven participating centers, and has processes in place to allow for future expansion into additional sites. To date, CAPNET has over 70 team members and more than 5,500 cases entered in the database.

An overview of the first eleven months of data was peer reviewed and published in *Academic Pediatrics*; descriptive findings showed that most presenting concerns were for either bruises or fractures, and primarily for children ages three or younger. There are currently several studies utilizing CAPNET data underway.

CHOP, as the Data Coordinating Center, is responsible for maintaining the centralized database and creating large de-identified datasets that will be made available to participating sites and external, credentialed researchers who are interested in investigating the prevention, diagnosis, and treatment of child abuse and neglect. Improving the outcomes of child physical abuse requires that we understand the child in the context of their family, community and nation. Thus, CAPNET also plans to link the data with longitudinal, county-level data to facilitate research related to the impact of the economy, policy and other events on child abuse rates.

Next Steps

Relevant, reliable research in child physical abuse is urgently needed to improve the evaluation and protection of abused children and, concurrently, to guard against misdiagnoses that introduce harm by disrupting families and delaying diagnosis of rare diseases. Historically, this research has faced significant barriers, including relatively low numbers of patients in any single center, wide variability in symptoms displayed by patients when receiving care, inconsistency and bias in clinical evaluations, and lack of uniform data measures. CAPNET is establishing a reliable data infrastructure, uniform definitions, and a structured process of career development and data sharing. It is currently being used to simultaneously address multiple, practice-altering research questions, thus helping to protect the health and safety of children.

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Related Tools & Publications

Changes in Child Placement After Child Abuse Pediatrics Consultation for Suspected Physical Abuse
Article
Sep 2025

Child Abuse Pediatrics Research Network: The CAPNET Core Data Project
Article
Jul 2022

Development, Contributions, and Future Directions of a Multicenter Child Abuse Research Network
Article
Mar 2024

Factors Associated With Child Protective Services Referrals in Young Children With Isolated Skull Fractures
Article
Dec 2025

Improving Child Physical Abuse Detection & Reducing Disparities Within and Between Hospital Settings
Evidence to Action Briefs
Feb 2022

Missed Opportunities to Protect Kids: The Importance of Screening for Child Abuse
Blog Post
Jul 14, 2015

Occult Abdominal Trauma Screening in the Evaluation of Suspected Child Physical Abuse
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Mar 2020

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