

Journal Highlights

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While sometimes marginalized, physicians and medical services continue to play a central role in the professional response to child abuse and neglect. A growing number of articles highlight the outcomes and contributions made by health professionals in the identification, assessment, and prevention of child abuse and neglect.

Early Identification and Prevention

Medical professionals continue to evaluate methods that have the potential to capitalize on parental receptiveness to cognitive interventions during the newborn period as a form of universal, primary prevention. In a classic study that has been used as a model to replicate programs across the U.S., Dias et al. (2005) showed that a comprehensive, regional, hospital-based, parent education program administered at the time of the child's birth was associated with 47% decrease in abusive head injuries. Incidence decreased from 41.5 cases per 100 000 live births during the 6-year control period to 22.2 cases per 100 000 live births during a 5.5-year study period.

More recently, Altman et al. (2011) studied a consortium of the 19 community hospitals and 1 tertiary care children's hospital that provide maternity care in the New York State Hudson Valley region. The researchers implemented a similar program to teach parents about the dangers of shaking infants and how to cope safely with infant crying. To facilitate the study, maternity nurses delivered a program that included a leaflet explaining abusive head trauma (i.e., shaken baby syndrome) and how to prevent it, an 8-minute video on the subject, and a statement signed by parents acknowledging receipt of the information and agreeing to share it with others who will care for the infant. There was a decrease from 2.8 injuries per year in controls (14 cases in 5 years) to 0.7 injuries per year during the intervention (2 cases in 3 years), representing a 75% reduction. The authors concluded that this study provides strong corroborating evidence that a low-cost prevention program delivered by maternity nurses can substantially reduce newborns' risk of sustaining an abusive head injury resulting from shaking during the first year of life.

Identifying high-risk families and infants for targeted or secondary prevention has also been implemented during health-care visits. In an early study, Brown, Cohen, Johnson, and Salzinger (1998) found that different patterns of risk factors predicted the occurrence of physical abuse, sexual abuse, and neglect, although maternal youth and maternal sociopathy predicted the occurrence of all three forms of child maltreatment. They concluded that assessment of a number of risk factors might permit health professionals to identify parents and children who are at high risk for child maltreatment, facilitating appropriate implementation of prevention and treatment interventions.

In the newborn period, Brownell et al. (2011) used a screening tool designed to predict family risk in Manitoba, Canada. Using linked data for 40,886 infants, they found that those who were at risk at birth were 15 times more likely to enter foster care than those screening "not at risk." Screening efforts to identify vulnerable families missed a substantial portion of families needing support, but the screening tool demonstrated moderate predictive validity for identifying children at risk of entering care in the first years of life.





Various authors also note attempts to identify families and children at risk during emergency department and pediatric visits. Although systematic screening for child abuse of children presenting at emergency departments might increase the detection rate, studies to support this have been scarce. Louwers et al. (2012) investigated whether introducing screening and training emergency department nurses increases the detection rate of child abuse. In a Dutch intervention cohort study, 104,028 children aged 18 years or younger were screened in the emergency departments of seven hospitals, and significant trend changes were observed after training the nurses and after the legal requirement of screening by the Dutch Health Care Inspectorate. These results indicate that systematic screening for child abuse in emergency departments is effective in increasing the detection of suspected child abuse, and both a legal requirement and staff training are recommended to significantly increase the extent of screening.

Dubowitz, Lane, Semiatin, and Magder (2012) examined the effectiveness of the Safe Environment for Every Kid (SEEK) model of enhanced pediatric primary care to help reduce child maltreatment in a relatively low-risk office population of 18 pediatric practices. The study recruited 1,119 mothers of children ages 0 to 5 years, and the SEEK model included screening and training health professionals to address targeted risk factors (e.g., maternal depression). The researchers found that SEEK was associated with reduced maternal psychological aggression and minor physical assaults in this population and concluded that SEEK offers a promising and practical enhancement of pediatric primary care.

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Reporting and Accuracy of Evaluations

While physicians have historically underreported child maltreatment, a number of studies have noted improvements in medical practice. Sege et al. (2011) examined the validity of primary health care providers' (PHCPs) assessment of suspicion that an injury was caused by child abuse and their decision to report suspected child abuse to child protective services. They used a subsample of injuries drawn from the 15,003 childhood injuries evaluated in the Child Abuse Recognition and Evaluation Study. The study also employed expert review of providers' retrospective self-assessment of 111 clinical vignettes to assess PHCPs' opinions 6 weeks and 6 months after the injury-related visits. PHCPs and experts agreed about the suspicion of abuse in 81% of the cases of physical injury, but PHCPs did not report 21% of injuries that experts would have reported. Compared with expert reviewers, PHCPs had 68% sensitivity and 96% specificity in reporting child abuse. It is interesting that a PHCP's decision to report suspected child abuse to CPS did not reduce the frequency of primary care follow-up in the 6 months after the index visit. The authors concluded that future training should focus on (a) clear guidance for better recognition of injuries that are suspicious for child abuse and (b) state laws that mandate reporting.

Anderst and Dowd (2010) used a qualitative study to better understand specific comparative educational needs regarding child abuse diagnosis and management among physicians from differing specialties and practice types. A total of 22 physicians participated in focus groups facilitated by a professional moderator using a semi-structured interview guide. Five specific domains of child abuse education needs were identified from previously published literature, including (1) general impressions of evaluating child abuse, (2) identification and management, (3)

education–resource formats, (4) child–caregiver interviews, (5) medical evaluations, and (6) court testimony. Participants identified common areas of educational need but the specifics of those needs varied among the groups. Neglect, interviewing, court testimony, and subtle findings of abuse were educational needs for all groups. All groups may benefit from specialty-specific education regarding appropriate medical evaluations of potential cases of abuse and neglect. The authors concluded that significant educational needs exist regarding child abuse/neglect, and educational needs vary based on physician training and practice type.

McGuire, Martin, and Leventhal (2011) compared the opinions of the likelihood of child maltreatment of the initial physician, Child Protective Services (CPS), and the child abuse pediatrician for physical abuse cases. Of the 187 cases evaluated, 50.3% occurred in children younger than 1 year of age, and injuries included fractures (50.8%), burns (16.6%), and bruises/abrasions (15.0%). The child abuse experts' opinions were 47.6% definite or probable maltreatment, 8.6% uncertain, and 43.9% definite or probable benign. Of the 119 cases with opinions from all three assessors, the expert agreed with the initial physician in 57.1% of cases and with CPS in 64.7%. The best predictor of the expert's opinion that the injury was due to maltreatment was agreement between the physician and CPS that maltreatment had occurred. Levels of agreement were fair to poor between the child abuse expert and either the physician or CPS. The authors concluded that child abuse experts' opinions have important value in selected cases to confirm previous assessments by the physician and/or CPS, or to change the opinion of the case.

Adams et al. (2012) studied the ability of clinicians who examine children for suspected sexual abuse to recognize and interpret normal and abnormal anogenital findings in magnified photographs and to determine which factors in education, clinical prac-

tice, and case review correlate with correct responses. After viewing photographs and clinical information from 20 cases, participants answered 41 questions regarding diagnosis and medical knowledge. The mean number of correct answers among the 141 first-time survey respondents was 31.6 out of 41. Child abuse pediatricians had mean total scores (34.8) that were significantly higher than general pediatricians (30.1) and sexual assault nurse examiners (29.3). The study found that child abuse pediatricians, examiners who perform many CSA examinations on a regular basis, examiners who regularly review cases with an expert, and examiners who keep up to date with current research have higher total scores, suggesting that they have greater knowledge and competence in interpreting medical and laboratory findings.

To further determine how well experts agree when assessing child sexual abuse cases, Starling, Frasier, Jarvis, and McDonald (2013) recruited a total of 12 physician subjects in an existing peer-review network where they had been chosen for their experience in the field and affiliation with children's advocacy centers. Each expert submitted three cases of prepubertal female genital examinations clearly demonstrable of the case findings, reviewed each submitted case, and labeled the case negative for physical finding(s), positive for physical finding(s), or indeterminate. The study found that experts exhibit consensus in cases where the findings clearly are normal and abnormal, but they demonstrate much more variability in cases where the diagnostic decisions are less obvious. Most of the diagnostic variability was due to interpretation of the findings as normal, abnormal, or indeterminate, not the identification of the examination findings themselves.

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Impact on Child Welfare Cases

Primary care and specialty medical services are also being found to have new impact on outcomes in the child welfare system. Anderst, Kellogg, and Jung (2009) sought to characterize the changes regarding the diagnosis of physical abuse provided to Child Protective Services when CPS asks a child abuse pediatrician (CAP) for a second opinion and works in concert with the CAP on that case. Study subjects were reported to CPS for suspected physical abuse and were first evaluated by a physician without specialized training in child abuse pediatrics. The subjects were then referred to the area's only CAP physician group. The researchers then compared the diagnoses regarding abuse provided by CAP physicians (working in concert with CPS) with those provided to CPS by other physicians. In 42.5% of cases, non-CAP physicians did not provide a diagnosis regarding abuse despite initiating the abuse report to CPS or being asked by CPS to evaluate the child for physical abuse. Sometimes, CAPs found that abuse did not occur, and differences in diagnosis were 3 times more likely in children from a nonurban location. The study concluded that in many cases of possible child physical abuse, non-CAP providers do not provide CPS with a diagnosis regarding abuse and that CPS's consultation with a CAP as a second opinion, along with continued information exchange and team collaboration, frequently results in a different diagnosis regarding abuse.

Although pediatric sexual assault nurse examiners (P-SANEs) have been providing care for longer than two decades, there are major gaps in the literature describing the quality of P-SANE care and legal outcomes associated with their cases. Hornor, Thackeray, Scribano, Curran, and Benzinger (2012) compared quality indicators of care in a pediatric emergency department before and after the implementation of a P-SANE program, looking at trace forensic evidence yield, identification of perpetrator DNA, and judicial outcomes in pediatric acute sexual assault. The study found that detection and documentation of anogenital injury, evaluation and documentation of pregnancy status, and testing for *N. gonorrhoea* and *C. trachomatis* were significantly improved after implementation of a P-SANE program compared with historical controls.

More than \$55 million are reportedly spent on hospital-based child protection teams (CPTs) annually, but there is no consensus on what makes CPTs effective. In the hospital setting, Goessler, Bonfert, and Fasching (2011) sought to follow up on child protection children after discharge to assess efficiency of the hospital child protection team (CPT) and collaboration with child welfare agencies. Clinical cooperation of the families and outcome were good overall, but in a small number of cases, injuries were reported to the police that led to convictions. Cooperation of the families with the child welfare workers was

good in 50% of cases, ambivalent in 15%, and nonexistent in 8%. The authors concluded that measures initiated by the hospital-based team to protect children were efficient.

Kistin, Tien, Bauchner, Parker, and Leventhal (2010) created expert consensus on tasks that CPTs should perform and factors that contribute to effectiveness using a modified Delphi approach to create expert consensus among professionals with experience working with hospital-based CPTs. The study found that experts believed that CPTs should provide communication of findings to appropriate agencies, court testimony, medical consultations, multidisciplinary case review, and forensic interviews. It also found that professionals who use CPT services and CPT members should determine CPT success. Variables that were ranked most often as critical to effectiveness included interdisciplinary collaboration (95% of participants), provision of resources (80%), and team collegiality (75%). Variables that were ranked as most detrimental included inadequate staffing (85%) and lack of collegiality (80%). The authors concluded that a multidisciplinary team working in a collegial atmosphere seems to be the major key to CPT effectiveness. In addition to providing services, CPTs should focus on improving collegiality and interdisciplinary collaboration and should seek performance feedback from referring professionals and CPT members.

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