
Comments by Richard D. Krugman, MD

It was Caffey’s article,6 “The Infant Whiplash Shaking Syndrome,” which has to be considered as the first landmark article in Pediatrics. This work was enormously important. It provided an explanation for how subdural hematomas in infants occur, it started the slide to extinction for the term “spontaneous subdural hematoma”, which was in vogue in the 1960s, and it has formed the conceptual basis for how pediatricians today understand broadly the etiology of one of the leading causes of infant morbidity and mortality from trauma. Caffey stated that the theme of his report was fourfold: “1) it presents the essential clinical manifestations of the whiplash shaken infant syndrome; 2) it presents evidence that so-called battered babies are really shaken babies; 3) it emphasizes the high vulnerability of the infant head, brain, and eyes to habitual, manual whiplash stresses of ordinary shaking by the extremities; and 4) it supports the hypothesis that casual, habitual manual whiplash shaking of infants is a substantial, primary frequent cause of later mental retardation and permanent brain damage.”

Of the hundred or so articles on child abuse and neglect that have been published in Pediatrics over the past 50 years, two other papers stand out that should have landmark status. I have chosen them because they fit the twin responsibilities of pediatricians who confront children with various forms of maltreatment every day in their practices. These responsibilities are recognition (including diagnosis) and prevention.

Southall and his colleagues published my second

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COMMENTARY

R eviewing the past 50 years of publications related to the field of child abuse and neglect in Pediatrics is clearly less daunting a task than one would face if the field were infectious disease or neonatology. In part, this is true because the field is relatively new, has suffered from a stunning lack of interest from National Institutes of Health and, with some exceptions, there is a paucity of professional interest in academic departments of pediatrics. It also has been perceived by many as a “social” or “legal” problem that was not amenable to medical intervention or study. Kempe’s landmark article,1 which was published in JAMA in 1962, is acknowledged as the catalyst for modern day pediatric interest in child abuse and neglect. Most of the publications in Pediatrics have recounted the medical findings of physically and, more recently, sexually abused children in an effort to assist in the differential diagnosis of “accidental” and “nonaccidental” injury. Some, including Helfer and Slovis’ brief communication2 in 1977, Billmire and Myers 1985 article3 in physical abuse, and McCann and colleagues work4,5 in the area of sexual abuse have been very useful, especially in the courtroom.


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Southall and his colleagues published my second
landmark article last November,7 which should forever dispel the notion (and wish) that abuse of children does not exist. Using covert video surveillance, he and his colleagues display vividly that human behavior is not limited to nurturance and support of our children. There were 39 cases in which induced illness (abuse) was suspected, including 36 children who had histories of acute life-threatening events. Abuse was documented on tape in 33 of the 39 cases, including 30 suffocations, two poisonings, and one inflicted fracture. A comparison group of 46 children with organically based acute life-threatening events had no abuse recorded on their tapes. I have commented previously on the article8 and will not repeat all of the lessons from this study here, except to say that one cannot read this compelling paper and continue to practice what our British colleagues call “gaze aversion.” In the 25 years since Caffey’s paper, we still have debate in the field and in the courtroom as to whether the mechanism of shaking alone, or a combination of shaking and impact, is necessary to cause the pathology observed.9 That a caretaker’s action was responsible for the injuries to the shaken children was clearly articulated by Caffey, yet he admitted that the diagnosis of abuse was circumstantial. It is undeniably explicit in Southall’s work and, I expect, there will be little debate in the field and the courtroom about whether the deliberate suffocation of children exists as a cause of death over the next 25 years (although individual cases undoubtedly will be hotly debated in medical and legal arenas).

The third landmark article relates to prevention. Olds and his colleagues published two articles in Pediatrics related to the use of public health nurses as home visitors in 1986.10,11 It was the second of these that is of most significance to the problem of child abuse and neglect. A program of prenatal and infant home visitation by nurses was tested as a method of preventing a wide range of health and developmental problems in children born to primiparas who were either teenagers, unmarried, or of low socioeconomic status. Among the women at highest risk for caregiving dysfunction, those who were visited by a nurse had fewer instances of verifies child abuse and neglect (P = 0.07) during the first 2 years of their children’s lives. They were observed in their homes to restrict and punish their children less frequently, and they provided more appropriate play materials. Their babies were seen in the emergency room less frequently during the first year of life. During the second year, the babies of all nurse-visited women were seen less frequently in the emergency room and had fewer physician visits for accidents and poisonings than did comparison group babies (P ≤ 0.05) in all cases except where noted.

A decade earlier, Kempe had advocated for the use of home visitors12 based on his clinical experience and small, not well-controlled studies in Denver, CO, in the 1970s. It was Olds who designed rigorously controlled trials of home visitation and showed in his 1986 Pediatrics article11 that the intervention showed promise. Although not published in Pediatrics, he has recently published the outcome of a 15-year follow-up on the Elmira population13 that documented not only the long-lasting reduction of reported child abuse, but significant improvement in family functioning as well. During the 15-year follow-up, visited mothers averaged fewer verified reports (0.29 vs 0.54) of abuse or neglect of their children (P < 0.001). Nurse-visited women had fewer babies, spaced them further apart, and spent 60 months versus 90 months on Aid to Families with Dependent Children (P < 0.001). Visited mothers had less impairment attributable to alcohol or drug abuse and were arrested fewer times on average (0.16 vs 0.90) during the 15-year period than nonvisited mothers. Thus, the 2 years of nurse visitation reported in Pediatrics in July 1986 had measurable, positive effects 15 years later! The landmark nature of this series of studies, however, is related not just to their outcomes, but to their methodology. Olds and his colleagues have shown us that large-scale intervention programs in the field are amenable to carefully designed, controlled studies that can leave us with clear policy options as we try to prevent children from being abused and neglected. Nothing is more important to the health policy of children than trustworthy data. We need more of this type of work.

A final observation: one hopes that the relative desert of child maltreatment research will recede and flourish far more in the next 50 years than it has to date. For that to occur, academic pediatrics departments in US medical schools need to take the problem much more seriously: Caffey was a radiologist. Olds is a developmenta

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**Landmarks in Child Abuse and Neglect: Three Flowers in the Desert. The Whiplash**


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