

Is the Battered-Child Syndrome a Modern Phenomenon?

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Abstract

The physical abuse of children is an important, yet little investigated, area of historical research to which paleopathologists can make important contributions. One question of considerable practical significance concerns the history of the "battered-child syndrome." Victims of this kind of abuse typically show skeletal injuries in several locations in different stages of healing. Recent forensic research in child homicide cases has resulted in the identification of a skeletal syndrome associated with the chronic physical abuse of children. The skeletal remains of such children commonly exhibit localized, asymmetrical areas of subperiosteal new bone formation in varying states of healing. The lesions are concentrated on the bones of the cranial vault, forearms, and legs. Examination of a large series of prehistoric Native American and early European archaeological collections suggests that chronic physical abuse of the kind producing the battered-child syndrome was extremely rare before recent times. The sociological variables responsible for the apparent increase in this abuse pattern are undoubtedly complex. It seems likely, however, that the battered-child syndrome in part results from the collapse of social control and support mechanisms that parents experienced in the past owing to their close spatial proximity to members of an extended kin group.

Introduction

"we know very little indeed about child nurture in pre-industrial times, and no confident promise can be made of knowledge yet to come" (1)

There is a surprising lack of historical information about the lives of children in the past. As deMause (2) notes, historians have concentrated so much on the "noisy sandbox of history with its fantastic castles and magnificent battles" that they have generally ignored what was going on in the homes and around the playgrounds. Paleopathologists can begin to fill this gap through studying the remains of children in archaeological collections. Of special interest in this regard is the evidence that can be obtained on the physical abuse of children in earlier populations. Documenting the circumstances surrounding past child abuse patterns is an especially important area of historical research to which we can make important contributions.

The Battered-Child Syndrome

A question of considerable practical significance paleopathologists can address concerns the history of the "battered-child syndrome." Kempe and his co-workers introduced this term in 1962 to characterize a clinical condition in children, usually younger than 3 years old, who suffered from serious physical abuse (3). Such children typically show fractures, subdural hematomas, failure to thrive, and multiple soft tissue injuries. Skeletal injuries in several locations in different stages of healing are key

diagnostic criteria for the battered-child syndrome. When parents provide inadequate or inconsistent explanations for these kinds of injuries, it is a strong indication that the trauma was not accidental but instead a result of chronic, intentional physical abuse.

Since skeletal injuries are practically pathognomonic of the battered-child syndrome, it is surprising that the condition has not been convincingly documented in the paleopathological literature. This is not because of a lack of effort. My colleagues and I have examined thousands of skeletons of ancient children in archaeological collections from throughout the world and have not found clear cases of the battered-child syndrome (4). I am not saying that the physical abuse of children did not exist in ancient times; it clearly did. There are, for example, many archaeological descriptions of the remains of children who are likely to have been homicide victims, either through infanticide or warfare. Examples of young children with multiple skeletal injuries in different stages of healing, in contrast, are exceedingly rare.

The Paradox of Historical Records

The absence of skeletons of children with evidence of chronic physical abuse in archaeological collections is especially puzzling in view of literary sources that suggest "spare the rod and spoil the child" was a commonly accepted dictum in the past (5). Of particular interest is deMause's (2) suggestion that "a very large proportion" of European children born before the eighteenth century were what today we would call "battered children." He bases this conclusion on his examination of over 200 statements on child-rearing made before the eighteenth century. Most of these authors approved of severely beating children and all but three allowed beating under varying circumstances.

Lynch's (6) review of historical sources is especially relevant in this regard since he did his survey with the battered-child syndrome specifically in mind. Starting with the first known treatise in pediatrics, he found indications that many early physicians recognized signs of physical child abuse and found it easy to accept that those caring for children might injure them. Knight (7) did a similar survey and found especially detailed descriptions of child abuse in the nineteenth century, French medical literature.

Skeletal Evidence

How can we resolve this apparent contradiction between historical records and the paleopathological evidence? If the battered-child syndrome existed, it clearly would leave its marks on the skeletons of children in archaeological collections. Although the soft-tissue manifestations of the battered-child syndrome such as detached retinas and subdural hematomas cannot be observed in skeletal remains, the fractured long bones and other osseous injuries commonly seen in such children are readily observable. For instance, Kerley (8) found clear gross and radiographic evidence of antemortem fractures in the skeletons of three battered children killed by their parents. Especially numerous were rib fractures, a common clinical finding in battered children.

It is true that certain skeletal injuries can be difficult to identify owing to postmortem skeletal damage. The small bone fragments associated with metaphyseal "chip fractures," for instance, are unlikely to be retrieved in archaeological excavations. These injuries are produced when an abuser violently shakes an infant while holding the child by an arm or a leg. Other injuries, however, are easier to identify in skeletal material than in

living children. Localized areas of subperiosteal new bone formation of traumatic origin, for example, are typically present in the skeletal remains of children who die from chronic physical abuse (Figure 1). These "bone bruises" are produced by blows that cause subperiosteal bleeding and by the periosteum being stripped away from the bone when a child's arm or leg is grabbed and used as a "handle" by the abuser. Although well-healed periosteal lesions of this kind are easily identified in skeletal remains, they are often radiographically invisible (4).

Insert figure 1 here

Problems of Sample Size and Preservation

If battered children did exist before the 20th century, as historical accounts suggest, why is there so little archaeological evidence of them? Is it possible that the archaeological collections systematically examined for the battered-child syndrome have been too small?

One way to address these questions is to consider how many modern children who die are likely to have skeletal lesions indicative of chronic physical abuse. The ages of greatest susceptibility to battering are 0-4 years. Among modern Americans living in Eire County, New York, about 92% of the deaths in this age group are from "natural" causes, such as infectious diseases and accidents, and 8% are from homicide (9). The murderer in the homicides is usually one of the child's parents. Although some of the homicide victims probably were not chronically abused, these children must certainly be considered as candidates for the battered-child syndrome. This conclusion is reinforced by modern French statistics showing that battering is the cause of death in 47% of the homicides of children in the 0-4 age group (10).

From these statistics, it seems likely that less than 10% of the children in a modern skeletal collection would be victims of, and thus show skeletal evidence of, the battered-child syndrome. If battered children were in the past much less common than they are today, a large skeletal series would be needed to detect the condition. Also, in collections dating from the nineteenth century and earlier the proportion of children dying of infectious diseases would be much higher than it is today. This would decrease further the proportion of skeletons of young children dying from chronic physical abuse.

The chances of identifying the battered-child syndrome are also reduced by the poor preservation that is typical for the skeletons of children (11). For example, only 56% of the long bones of the children in the large Romano-British Poundbury collection that I studied at the British Museum were well enough preserved to examine for evidence of the battered-child syndrome.

Although these sample size and preservation problems are substantial, it seems likely that enough collections have been examined by bioarchaeologists to result in the identification of many battered children if such children were at all common. The paleopathological literature is full of descriptions of skeletons with rare genetic disorders and pathologies. Many of these conditions occur in modern populations at a frequency much lower than the battered-child syndrome. If battered children were as frequent in the past as they are today, we should find archaeological evidence of them.

Resolving the Historical Paradox

Is the battered-child syndrome a modern phenomenon? From historical records, it is apparent that punishing children through beating them was common in Europe during the nineteenth century and earlier. Clear osteological indications of the battered-child syndrome are consistently found in the skeletons of modern children killed by their parents (4,8). If the beatings described in historical sources were similar to those that produce the modern battered-child syndrome, some of the children who suffered from these beatings should show skeletal signs of abuse.

One possible explanation of this apparent paradox is that the historical records of child beating refer to an abuse pattern that is different from the one we see today. For example, most of the historical descriptions of child beating refer to older, school-age children, or children forced to work in factories, and not the young infants who are the principal victims of the battered-child syndrome. We know from osteological studies that, in Western societies, patterns of interpersonal violence between adults have changed markedly in recent times (12). This also might be true of adult violence directed toward children.

If the battered-child syndrome is largely a 20th century phenomenon, what factors are likely to explain its recent appearance? Perhaps social conditions conducive to it did not exist in the past. It seems likely, for instance, that the collapse of traditional mechanisms of social control and support is important. Until recently, it was difficult for severely abusive parents to escape detection and intervention owing to their close spatial proximity to members of an extended kin group. This weakening of social control over abusive behavior has been greatly facilitated by urbanization and the high spatial mobility of modern societies. The isolation and anonymity created by these social changes decrease the likelihood of people outside the immediate family detecting and intervening in cases of child abuse.

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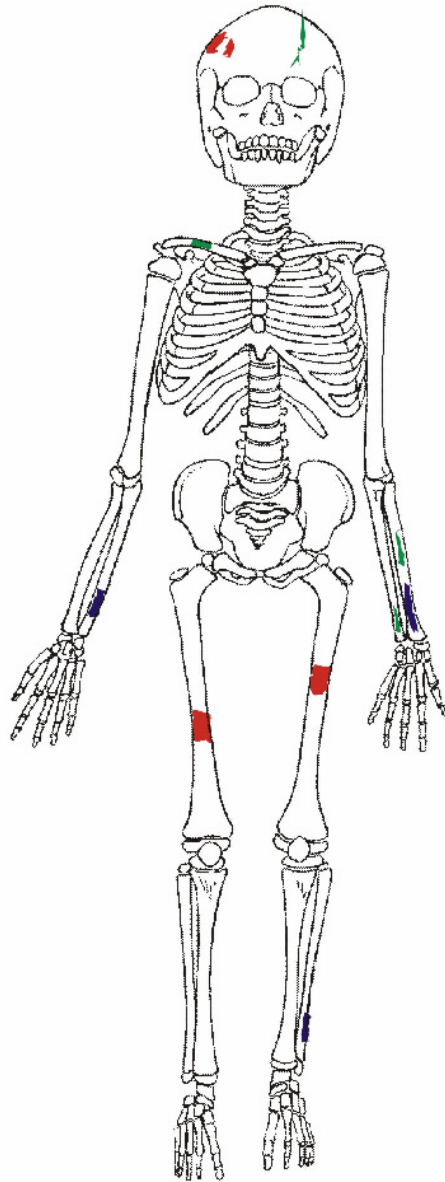


Figure 1: Composite drawing of localized areas of subperiosteal new bone formation of traumatic origin in the skeletons of three children who suffered from chronic physical abuse and were finally killed by their parents . These "bone bruises" were produced by blows that caused subperiosteal bleeding and by the periosteum being stripped from the bone during assaults (4).