

Reports

How Caregiver Separation Harms Children: A Biological Lens to One Child's Trauma

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This manuscript discusses the story of Baby Doe, an infant from Afghanistan whose parents died during a raid by U.S. Marines. She was initially placed with relatives but one Marine, Joshua Mast, would “adopt” her without her caregivers’ knowledge. This manuscript briefly explains the history and neuroscience of maternal separation, and advocates for Baby Doe to be returned to her rightful caregivers.

In 2019, the United States led a military raid in central Afghanistan that resulted in numerous casualties, including the death of both parents and all siblings of a 2-month-old infant.¹ This orphaned infant would become known as Baby Doe. After losing her immediate family, she was taken in and cared for by her loving relatives up until her second birthday, when everything changed. At only 2 years old, Baby Doe was taken away by a U.S. Marine who “adopted” her without her Afghan family’s knowledge.¹ In recent court documents, the U.S. government has appropriately described this as an act of “international child abduction.”²

Baby Doe now finds herself at the center of an international custody battle. As members of the medical community, it is our responsibility to strongly condemn this child’s separation from her Afghan family, culture, and community. Yet her story is reminiscent of the United States’ history of separating children from their families and the resulting psychological and biological consequences that haunt them into adulthood.

Disrupting the emotional bond between a child and caregiver may harm the child’s development and well-being. The United States has a long history of child abduction and caregiver separation. These include violently separating enslaved parents from their children as well as abducting Native American children from their tribes and forcing them to assimilate at Indian boarding schools.³ More recently, the Trump administration’s Zero Tolerance policy separated thousands of immigrant children from their families. These all offer historical examples of the harms of child-caregiver separations.³ There has been some progress in supporting the reunification of children with their biological family. One example is the Indian Child Welfare Act, which gives tribes the sovereignty to make decisions in child welfare cases, therefore prioritizing chil-

dren staying within their kinship circle, community, and tribe, even when out-of-home placement is deemed necessary.⁴ Yet there are still highly publicized cases, like Baby Doe’s, of forced family separation that puts into question the health, safety, and well-being of a child.

In order to understand the neurobiology of what separated children experience, and what Baby Doe may be experiencing right now, it is imperative that we center the strong emotional bonds this child had already formed with her relatives, specifically her aunt who cared for Baby Doe as her own. As a unit, this family began to repair the trauma Baby Doe endured after losing her parents and surviving a violent raid that left her with severe physical injuries. These adverse childhood experiences—potentially traumatic events in the absence of emotional buffering that occur during childhood (0-17 years)—can have severe consequences on a child’s health over the course of his/her life through biological mechanisms, many of which have yet to be elucidated.^{5,6} To cope with these traumas, children need familiarity, care, and stability, all things Baby Doe’s relatives provided in addition to their comfort, warmth, and love.

Harry Harlow’s research at the University of Wisconsin–Madison during the 1950s, using animal models, demonstrates the critical importance of these strong emotional bonds. Harlow studied newborn monkeys that were separated from their mothers and assessed whether they would seek comfort from one of two surrogates: a wire surrogate with food or a surrogate with a soft cheesecloth.⁶ The surrogate mothers with the cheesecloth were preferred over the wire surrogate mothers, suggesting that emotional comfort was critical to the emotional well-being of the infant monkeys and may buffer against distressing experiences. Interestingly, separation from these surrogates re-



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sulted in emotional disturbances that lasted several days.⁷ Albeit more complex in humans, these experiments can provide an analogy to understand what happens in children like Baby Doe, who have been separated from their caregivers and ripped from their source of comfort. These children cry, become socially withdrawn, and fall into learned helplessness—the belief that one's distressing and current environment is inescapable.

In addition, Harlow's research with animal models found that maternally separated infant monkeys displayed both decreased locomotion and exploration, behaviors associated with depression and anxiety.⁸ With no comfort from caregivers, these children may become susceptible to emotional harm and susceptible to maladaptive coping behaviors, such as non-suicidal self-injury and suicide.⁹ This is akin to Native American children who were forced to attend boarding schools and later developed higher rates of substance use disorder, suicidal ideation, or even attempted suicide, when compared to children who grew up connected to their families, culture, and communities.¹⁰

Additionally, studies conducted with children who were orphaned in Romania found that they displayed greater insecure attachment patterns and indiscriminately friendly behavior.¹¹ But what exactly drives these behavioral changes and adverse health outcomes? To understand that, we need to look deeper into the biological changes that may occur among children who are separated from their families.

Maternal separation adversely affects both the health of children and the body's stress response system, the hypothalamic–pituitary–adrenal (HPA) axis, by flooding the infant with the stress hormone, cortisol. These elevated cortisol levels persist into adulthood because separation removes the stress-buffering system that would normally regulate the HPA axis.¹² In rodents, non-human primates, and human children, the caregiver's presence can decrease cortisol levels.¹³ The absence of a caregiver diminishes any potential buffering factors that can protect the child, highlighting the importance of an infant being with its caregivers.¹⁰

It is important to remember that Baby Doe was not displaced due to adoption—she was taken. No child who is the victim of abduction should be kept with their abductors, especially in light of the empirical research on the mental health implications of disrupted child–caregiver attachments. After forced time apart and the trauma of this separation, the process of reunifying any separated family and re-establishing attachment is likely to encounter challenges. However, these challenges should not be a barrier to ensuring children are given their rightful opportunity to restore the bonds they once had with their families. The same is true for Baby Doe. Although the adoption was voided last year, Baby Doe remains with the family under a temporary custody order.⁴ If the courts decide to reunite Baby Doe with her rightful family of Afghan origin, they must also ensure there is ongoing psychosocial support post-reunification so that Baby Doe and her biological caregivers have access to the resources they need to begin the process of healing and repairing from these wounds.^{14,15}

Take Home Summary

A sensitive and responsive caregiver can buffer or mitigate the effects of a traumatic environment. Neuroscience research helped elucidate the traumatic effects of being separated from a caregiver, including the dysregulation of stress response pathways. By soothing the child, caregivers mitigate the HPA axis that would otherwise increase the child's risk of emotional dysregulation and psychopathology in the future. This buffer system was disrupted when Baby Doe was separated from her Afghan relatives, leaving her vulnerable to harmful stressors. Given these long-term developmental risks, it is imperative that the medical community advocate for Baby Doe to be reunited with her relatives in Afghanistan so that she may finally be given the opportunity to establish stable attachments with her family of origin.

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AUTHOR DISCLAIMER

The case details written in this manuscript are all publicly available knowledge. Jared E. Boyce collected the literature cited and prepared the manuscript.

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