

A. Scientific Research on the Effects of Removal from Parents Generally

- Allison Eck, Psychological Damage Inflicted by Parent-Child Separation is Deep, Long-Lasting, NOVA Next (June 20, 2018), http://www.pbs.org/wgbh/nova/next/body/psychological-damage-inflicted-by-parent-child-separation-is-deep-long-lasting/?utm_source=FBPAGE&utm_medium=social&utm_term=20180620&utm_content=1603761016&linkId=53285432&utm_source=FBPAGE&utm_medium=social&utm_term=20180623&utm_content=1608267756&linkId=53391996

In response to the separation of families at the border in 2018, this article explores the harm that can result when a child is removed from his or her parents. Citing statements released by the scientific community in response to current events, the article focuses on the devastating effects for both child and parent. The article quotes Erin C. Dunn, a social and psychiatric epidemiologist at Massachusetts General Hospital's Center, who states that, "The scientific evidence against separating children from families is crystal clear," and "[w]e all know it is bad for children to be separated from caregivers." The article details the harm that can result from the "monsoon of stress hormones... flood[ing] the brain and body," noting potential increased risks of developing heart disease, diabetes, and even certain forms of cancer. Quoting Carmen Rosa Norona, Child Trauma Clinical Services and Training Lead of Boston Medical Center's Child Witness to Violence Project, the article states that even when children are in the care of parents who may not be able to meet their needs, they "still organize their behaviors and thinking around these relationships and go to great lengths to maintain them."

- Sara Goydarzi, Separating Families May Cause Lifelong Health Damage, Scientific American (June 2018), <https://www.scientificamerican.com/article/separating-families-may-cause-lifelong-health-damage/>.

This article documents the potential long-term effects of family separation on children. The article includes an interview with Alan Shapiro, Assistant Clinical Professor of Pediatrics at Albert Einstein College of Medicine, in which he examines the various acute and long-term harms caused by family separation. According to Shapiro, separation can impact children in various ways, including developmental regression, difficulty sleeping, depression, and acute stress. Dr. Shapiro also notes that "[t]he younger you are when you're exposed to stress . . . , the more likely you will have negative health outcomes caused by dysregulation of stress response." That dysregulated stress response, in turn, "leads to architectural changes in the brain—which means that in the future children might end up with serious learning, developmental and health problems." Pointing to the results of a 17,000-patient study called Adverse Child Experiences ("ACEs"), Dr. Shapiro further asserts that family separation may also lead to long-term chronic medical conditions like cardiovascular disease, hypertension, obesity, and decreased longevity.

- National Center for Missing & Exploited Children key facts (2017), <https://web.archive.org/web/20181016212108/http://www.missingkids.org/KeyFacts>.

Separating a child from their parents and putting them into the care of social services can increase a child's risk of becoming a runaway and a victim of child sex trafficking. "Of the nearly 25,000 runaways reported to NCMEC in 2017, one in seven were likely victims of child sex trafficking. Of those, 88 percent were in the care of social services when they went missing."

- Kimberly Howard et al., Early Mother-Child Separation, Parenting, and Child Well-Being in Early Head Start Families, 13 *Attachment & Human Development* 5 (2009), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3115616/>.

This study examines the impact of early mother-child separation on both maternal parenting and later child development through the lens of attachment theory, which generally posits "that caregivers must be present and accessible in order for their children to become attached to them." The study defines separation broadly as *any* separation from the mother that lasts one week or more within the child's first two years of life. The study concludes that any such separation—even those occurring for innocuous reasons—can "result in distress for a young child who lacks the cognitive abilities to understand the continuity of maternal availability." The study's findings were based on observations of 2,080 predominantly poor families collected over a period of five years. Controlling for baseline family characteristics and indicators of family instability, the study found that the separation of mother and child was related to higher levels of child negativity toward mothers (at age 3) and aggression (at ages 3 and 5).

- Marcia McNutt, Statement on Harmful Consequences of Separating Families at the U.S. Border, National Academies of Sciences Engineering Medicine (June 20, 2018), http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=06202018&_ga=2.2927672.960183307.1530129958-713614449.1530129958.

This statement deals primarily with the separation of immigrant families at the border, but bases its conclusions on research concerning the effects of the removal of children from their parents more generally. Relying on a comprehensive study by the National Academies of Sciences, Engineering, and Medicine ("NASEM"), the statement asserts that family separation "jeopardize[s] the short- and long-term health and well-being of the children involved." The statement further notes NASEM's finding that in light of the complex interactions among genetic, biological, psychological, and social processes during child development, family disruption can "hinder health development and increase[] the risk of future disorders."

This statement points the reader in the direction of several key resources:

1. NASEM, Parenting Matters: Supporting Parents of Children Ages 0-8 (2016), <https://www.nap.edu/read/21868/chapter/2>
2. Nat'l Res. Council & Inst. of Med., Preventing Mental Emotional, and Behavior Disorders Among Young People: Progress and Possibilities, Ch. 4 (2009), <https://www.nap.edu/read/12480/chapter/7#74>

3. Nat'l Res. Council & Inst. of Med., From Neurons to Neighborhoods: The Science of Early Childhood Development, Ch. 20 (2000), <https://www.nap.edu/read/9824/chapter/20#387>
 4. Inst. of Med., Reducing Suicide: A National Imperative, Exec. Summ. (2002), <https://www.nap.edu/read/10398/chapter/2>
- NOVA PBS Official, Inside the Brains of Children Separated from Parents, YouTube (June 25, 2018), <https://www.youtube.com/watch?v=bwpcn8sRtqg&feature=youtu.be>.

This short informational film provides a summary of the neurological processes that occur when a child is separated from her parents. Through visual aids, the film demonstrates how stress from separation can impact a child's brain within the first few minutes of removal. According to psychologists Karlen Lyons-Ruth and Robin Deutsch, even very brief separations are stressful for infants and young children because cortisol (a stress hormone) floods the brain and begins to damage brain cells. Additionally, the over-activation of the amygdala, the portion of the brain responsible for fight-or-flight instincts, can compromise the child's ability to evaluate risks and make good decisions. The ability to form an attachment with a reliable and consistent caregiver is fundamental to a child's cognitive and social development. Time is very important when dealing with young children because deterioration of this attachment can take place very quickly; even a few weeks away from a parent is an enormous amount of time for an infant.

- William Wan, What Separation from Parents Does to Children: 'The Effect is Catastrophic', Washington Post (June 18, 2018), https://www.washingtonpost.com/national/health-science/what-separation-from-parents-does-to-children-the-effect-is-catastrophic/2018/06/18/c00c30ec-732c-11e8-805c-4b67019fcfe4_story.html?noredirect=on&utm_term=.cf5ca597dc72

This article discusses generally the research on child-parent separation that "is driving pediatricians, psychologists, and other health experts to vehemently oppose the Trump administration's new border crossing policy." The cross-cultural research presented provides insight into the physical and psychological impact of child-parent separation in a wide range of circumstances. Of particular interest is the discussion of Charles Nelson's research, which studied the neurological development of children in Romanian orphanages.

A pediatrics professor at Harvard Medical School, Nelson found that the children "separated from their parents at a young age had much less white matter, which is largely made up of fibers that transmit information throughout the brain, as well as much less gray matter, which contains brain-cell bodies that process information and solve problems." Nelson also noted that children who were separated from their parents within the first two years of their life scored significantly lower on IQ tests later in life and their fight-or-flight response system appeared "permanently broken." The article also references research on aboriginal children removed from their parents in Australia who, when compared to children who remained with their parents, were "nearly twice as likely to be arrested or criminally charged as adults, 60 percent more likely to have alcohol-abuse problems, and more than twice as likely to struggle with gambling." As the article

notes, it is the duration of this damage that is the most troubling aspect of separating parents and children: “Unlike other parts of the body, most cells in the brain cannot renew or repair themselves.”

- [The Science of Childhood Trauma and Family Separation: A Discussion of Short – and Long-Term Effects](#), Cynthia García Coll, Ph.D; Gabriela Livas Stein, Ph.D; Nim Tottenham, Ph.D; D, Youtube (June 28, 2018) <https://www.youtube.com/watch?v=9-34LJoM1HY&t=3s>

This webinar focuses primarily on the issue of separation in the immigration context, but also generally discusses the impact of separation on children. Of particular relevance here, Dr. Nim Tottenham details the neuroscientific tools used to show the changes that occur when children experience trauma. She explains that when humans, as a species, experience a major threat to survival, “we activate threat systems in our bodies” like the amygdala. She elaborates, noting “when we keep activating stress hormones and circuits, it is harder and harder to shut them off – particularly for children.” Dr. Tottenham also posits that as a species, we are conditioned to expect parental buffering to take care of our needs. Thus, children who have experienced trauma need immediate remediation. But for traumatized children who have been separated from their parents, the major stress buffering system is removed at the very time when it is needed most—i.e., while the brain is undergoing a period of serious development.

This Webinar also discusses the long-term distress created by separation even after families are reunited. There is tremendous injury inflicted upon the family unit and parents. For both parents and children, separation leads to increased risks of depression, difficulty with social functioning, attachment issues, and PTSD.

- Stephanie Carnes, *The Trauma of Family Separation Will Haunt Children for Decades*, HUFFINGTON POST, June 22, 2018, (https://www.huffingtonpost.com/entry/opinion-carnes-family-separation-trauma_us_5b2bf535e4b00295f15a96b2).

Exposure to trauma in childhood can both stunt cognitive development and alter the structure of a young brain in profound ways. Thanks to the groundbreaking [Adverse Childhood Experiences Study](#), conducted by Kaiser Permanente and the Centers for Disease Control and Prevention, we know that exposure to traumatic events in childhood is strongly correlated with increased risk of suicide attempts, drug addiction, depression, chronic obstructive pulmonary disease, heart disease and liver disease. More detailed information about the study can be found in “[Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults](#),” published in the *American Journal of Preventive Medicine* in 1998, Volume 14, pages 245–258.

- J. Goldstein, A. Freud, & A. Solnit, *Beyond the Best Interests of the Child* (1973). https://www.jstor.org/stable/1121526?seq=1#page_scan_tab_contents

This book is cited frequently in law review articles and appears to be a leading authority on the potential harms associated with removal of a child from the parental home. A full version of the book does not appear to be available online for free, though it is available on Amazon for around \$15.