

# Children of Genocide Survivors Can Inherit Trauma in Their DNA

By [Amelia Pang](#), Epoch Times

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Clockwise from top left: Anoush Ter Taulian, Chhaya Chhoum, Delena Hoang, Natalia Frias-Staheli, and Rabbi David Niederman. (Samira Bouaou/Epoch Times)

NEW YORK—Recent research found that [trauma](#) can alter the way genes function and children can inherit the changes. People are not only products of their environments. Humans might, biologically, be products of their parents' environments as well.

A team of researchers at Mount Sinai Hospital in New York studied Holocaust survivors and their children who were born after the second world war. [The study](#), which was released in August, found that

Holocaust survivors and their children both had lower cortisol levels than Jewish families who had lived outside of Europe during the war.

Cortisol is a hormone that helps humans cope with stress. Low cortisol levels can cause depression, emotional hypersensitivity, and social anxiety.

Rachel Yehuda, the report's head researcher, found similar results when she previously studied the offspring of combat veterans and 9/11 survivors.

Her study doesn't imply that all offspring of **trauma** survivors will experience intergenerational trauma, but it offers new insights into the human condition.

Intergenerational trauma is not only passed on through sociocultural environments, but also through DNA. What is the biological footprint of a Jewish mother who lost all her children during the Holocaust, but goes on to have more in Brooklyn? How does the experience of an Armenian sex slave impact the DNA expressions of her progeny? What about the offspring of a Vietnamese woman deformed by Agent Orange; or the child of an Argentinian who gave birth in prison during the Dirty War?

Epoch Times interviewed these descendants. Many said they found solace in the study and hoped the scientific evidence that intergenerational trauma can be biologically transmitted will lead to more access to treatment.

## **Legitimizing Emotions and Seeking Help**

Dalena Hoang, a 21-year-old Vietnamese American with a pierced nose and a loose bun, said she experiences symptoms of intergenerational trauma.

“I have a lot of negative thoughts and anger,” said Hoang, who was born and raised in the Bronx.

Hoang’s mother was deformed by Agent Orange and her father was a soldier in the South Vietnamese army who fought the Khmer Rouge.

She said her mother was a distant woman who would often stare into space with a worried expression while her father rarely stayed at home.

“He could never sit still,” Hoang said. “I think he’s still at war in his head.”

Hoang said learning about the biological aspect of trauma transmission has helped legitimize her feelings.

Those who experience intergenerational trauma often feel that their pain is not worthy of acknowledgment.

Nadine Murshid, a University of Buffalo assistant professor who studies genocides and trauma, worries that most people who suffer from intergenerational trauma do not seek help.


“Their secondary trauma is often perceived to be less severe than first-hand traumatic experiences,” Murshid said. “The new research ... is very exciting for the field and has tremendous implications for mental health care.”

Intergenerational trauma is an ongoing issue that Mekong, a nonprofit that advocates for Southeast Asians in New York City, faces in its community.

Mekong’s office is located in the Bronx, where 10,000 Cambodian and Vietnamese refugees reside.

An estimated half a million to three million Cambodians lost their lives during the Cambodian Genocide, and mass killings occurred throughout Vietnam during the Vietnam War. Many of the South Asian refugees living in the Bronx express symptoms of PTSD, as do their children.

“Intergenerational trauma is what guided us from the beginning,” said Chhaya Chhoum, Mekong’s executive director.

 [Chhaya Chhoum, the executive director Mekong, a nonprofit that advocates for Southeast Asians in New York City on Oct. 26, 2015. \(Samira Bouaou/Epoch Times\)](#)

Chhaya Chhoum, the executive director of Mekong, a nonprofit that advocates for Southeast Asians in New York City on Oct. 26, 2015. (Samira Bouaou/Epoch Times)

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“We’ve never been able to prove trauma until after someone acted out,” said Chhoum, noting that her community needs more preventative mental health care that addresses intergenerational trauma. “This study is an important resource for us.”

Although, finding treatment for intergenerational trauma in the Bronx will be difficult since her community is close to losing the little mental health resources they had to begin with.

For the last 20 years, Montefiore Medical Center, the University Hospital for Albert Einstein College of Medicine, has offered an effective Indochinese Mental Health Program in the Bronx. This program, which provided culturally-sensitive mental health services for the Asian community, is about to be shut down due to budget cuts.

“This study is a game-changer for us,” Chhoum said. “I can use it to ask for federal funding.”

Rabbi David Niederman, president of the United Jewish Organizations of Williamsburg, also called for more mental health services for his

community.

Niederman was born after the second world war in Williamsburg, Brooklyn. But three of Niederman's siblings were killed by Nazis in Germany. "I felt there was a difference between me and the other kids on the block," he said.

Although he said he does not suffer from depression, he knows many Jewish people in his community who do and feels that intergenerational trauma should be addressed on a larger scale.

"It's important for public and private sectors to understand the need for services," he said.

## **Impact on Multiple Generations**

In the village of Ayintab in present day Southeastern Turkey, Anoush Ter Taulian's grandmother was kidnapped and sold into sex slavery during the Armenian Genocide.

The International Association of Genocide Scholars estimates that the Ottoman government killed 1.5 million Armenians from 1915 to 1918. Males were massacred while the elderly, women, children, and sick were forced to go on death marches through the Syrian desert. Many women were forced into sex slavery.

Ter Taulian's grandmother survived, but her traumatic experience was passed on to more than one generation in her family.

"It doesn't stop with the children," Ter Taulian said. "It goes to the grandchildren too."

Ter Taulian said she had always struggled with intergenerational trauma. She found comfort in knowing that it has been scientifically

proven that trauma can be transmitted through DNA expressions.

“It gives me solace. I feel there’s always people who say you’re imagining this,” she said. “That kind of research is important.”

## **Caring for Trauma**

Experts say that intergenerational trauma is not necessarily difficult to treat. Sometimes, it simply requires more awareness by mental health professionals and individuals who show symptoms of intergenerational trauma.

Murshid said she hopes this study will lead to more of what people in the field of social work call trauma-informed care.

Trauma-informed care means that when social workers take on clients, they need to be aware of the client’s history of trauma, which may include intergenerational trauma.

Behavioral therapy for parents who have experienced trauma can also help decrease the chances of their children inheriting trauma, Murshid said.

## **Better Prepared for Survival**

Natalia Frias-Staheli, the offspring of a Dirty War survivor, said she sees a silver lining in the biological transmission of trauma.


Frias-Staheli, who is currently a scientist at a biotech company, was born in an Argentine prison. Frias-Staheli’s mother was pregnant with her during the Dirty War in Argentina. From 1976 to 1983, 30,000 people were “disappeared” in Argentina.

“It’s nice that somebody took a scientific approach to it,” said Frias-Staheli, who holds a Ph.D. in biological sciences. “I’m sure whatever molecular changes are happening, it’s for a good reason. From the evolutionary perspective, it makes total sense.”

“I want to believe that my cells are better prepared,” she said. “If I ever have to face this situation again, my children will be better prepared to survive.”

## Stories of Intergenerational Trauma

### Anoush Ter Taulian

 [Anoush Ter Taulian, the granddaughter of an Armenian Genocide survivor in Manhattan, New York, on Oct. 20, 2015. \(Samira Bouaou/Epoch Times\)](#)

Anoush Ter Taulian, the granddaughter of an Armenian Genocide survivor, in Manhattan, New York, on Oct. 20, 2015. (Samira Bouaou/Epoch Times)

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Anoush Ter Taulian can still remember the smell of lamb pizza, pine nuts, and stuffed grape leaves at her grandmother’s house in Orange County, California. Her grandmother, an Armenian Genocide survivor, dealt with her pain by cooking.

Ter Taulian’s grandmother, a large woman with long red hair, inhabited a severe world of violent memories. She had been a sex slave during the [genocide](#). But she never spoke of her past. No one in her family did. For many years, the anger that pervaded her family went unexplained.

It wasn't until the 1960s, when Ter Taulian attended college at the University of California- Los Angeles, that she first heard of the Armenian Genocide. It sparked her journey to understand herself and her history.

Ter Taulian began going to seniors' homes to meet other Armenian survivors, coaxing them into talking. She listened to their accounts of Turks and Kurds arriving and chopping people up with axes. There were dead people everywhere. Dead people hanging from trees. Dead people piled on roads. Many Armenian seniors told her they survived by hiding under dead bodies.

One elderly woman who survived a death march without food or water recounted a conversation with her son—"If I die, I only want you to eat me."

 [This is the scene in Turkey in 1915 when Armenians were marched long distances and said to have been massacred. \(AP Photo\)](#)

This is the scene in Turkey in 1915 when Armenians were marched long distances and said to have been massacred. (AP Photo)

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For Ter Taulian, the Turkish government's denial of the Armenian Genocide added another layer of pain.

Although the International Association of Genocide Scholars estimates that the Ottoman government killed 1.5 million Armenians from 1915 to 1918, the Turkish government dismisses the deaths as massacres, but not a [genocide](#).

Ter Taulian has dedicated her life to producing art, radio shows, and lecturing at schools and churches about the Armenian Genocide.

She even traveled to the Near East to fight for Armenians in the Artsakh Liberation War, an Armenian-Azerbaijani conflict.




At 66, Ter Taulian is still looking to understand herself. Although she experiences PTSD from her experiences on the battleground, she said she had felt symptoms of intergenerational trauma from before the war. It consoled her to learn about the scientific evidence of intergenerational trauma. “It’s good they’re investigating this at that level,” she said.

“In my DNA I have that strength and I have that pain,” she said. “I can be emotionally withdrawn. I think it’s because in order for my grandmother to survive, she couldn’t have her full senses.”

Thinking of the current war in Syria, Ter Taulian said it was pertinent that societies begin to understand how to heal from direct and intergenerational trauma.

“We know the problem of intergenerational trauma. But what were we going to do about it?” she said. “Now we can do something.”

## Natalia Frias-Staheli

 [Natalia Frias-Staheli, the daughter of a Dirty War survivor in Manhattan, New York, on Oct. 31, 2015. \(Samira Bouaou/Epoch Times\)](#)

The daughter of a Dirty War survivor, Natalia Frias-Staheli in Manhattan, N.Y., on Oct. 31, 2015. (Samira Bouaou/Epoch Times)

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Frias-Staheli remembers a content childhood filled with bike rides and mountain climbs in an al fresco town in Sweden. But she was born in an Argentine prison.

Her mother was pregnant during the Dirty War, a period of state terrorism in Argentina that lasted from 1976 to 1983. Her father was among the 30,000 people who were killed under the military dictatorship.

When her mother was released from prison four years after her birth, they moved to Sweden, where they received refugee status.

The rest of her life unfolded safely. Frias-Staheli went on to earn a doctorate in microbiology and became a scientist. She married a fellow scientist and has two children.

Despite her mother's harrowing experience during the Dirty War, Frias-Staheli said she has never experienced depression or difficulty coping with stress.

Not every offspring of traumatized parents experiences symptoms of intergenerational trauma.

 [Hebe de Bonafini, the head of Argentina's Mothers of Plaza de Mayo group, whose children disappeared during the dirty war of 1970s, leads one of the marches in Buenos Aires's Plaza de Mayo in December 1979. Bonafini's confrontational style has increasingly distanced her from other mothers and other human rights groups. \(AP Photo/Eduardo Di Baia, File\)](#)

Hebe de Bonafini, the head of Argentina's Mothers of Plaza de Mayo group, whose children disappeared during the Dirty War of 1970s, leads one of the marches in Buenos Aires's Plaza de Mayo in December 1979. (AP Photo/Eduardo Di Baia, File)

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“The idea of the research is to show there might be a reason why some people feel more vulnerable to symptoms of depression and anxiety,” said Rachel Yehuda, the lead researcher in the intergenerational trauma study. “But I don't think people need treatment if they don't express symptoms. Just because you're an offspring of a trauma survivor it doesn't mean you're going to feel that way.”

Although Frias-Staheli does not exhibit symptoms of trauma, she is still searching for closure.


For the last 10 years, she has been actively searching for her half sibling. When her father was killed, his girlfriend was pregnant. Although his girlfriend was disappeared, Frias-Staheli believes the child survived.

The Argentine dictatorship waited for many pregnant women to give birth before killing them. The children were then given to members associated with the regime and other conservatives.

Grandmothers of the Plaza de Mayo, an organization that looks for children illegally adopted during the Dirty War, has been taking the DNA of children born between the years of 1978 to 1983 to try to match them with their birth families.

“I don’t know if I have a sister or a brother,” said Frias-Staheli, whose family has given blood to Grandmothers of the Plaza de Mayo in hopes of finding their lost relative. “But it will give me closure to find my sibling. Everyone deserves to know where they come from.”

## **Rabbi David Niederman**

 [Rabbi David Niederman, president of the United Jewish Organizations of Williamsburg in Brooklyn, New York, on Oct. 27, 2015. \(Samira Bouaou/Epoch Times\)](#)


Rabbi David Niederman, president of the United Jewish Organizations of Williamsburg, in Brooklyn, New York, on Oct. 27, 2015. (Samira Bouaou/Epoch Times)

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During Rabbi David Niederman’s childhood in Williamsburg, Brooklyn, he thought hot dogs were sublime.

“Getting a hot dog ... was a real, real treat at the time,” he said.

His parents were tailors who immigrated to New York after the second world war. Although he was born and raised in Brooklyn, he felt that he was different from other children in his integrated neighborhood.

 [Children inside a Nazi concentration camp are being liberated by Soviet army soldiers in 1945. \(AP Photo\)](#)

Children inside a Nazi concentration camp in 1945. (AP Photo)

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Three of Niederman's siblings were killed during the Holocaust.

He remembered his mother lighting candles and crying on certain anniversaries, but his parents never spoke of the past.

"It was a wound they didn't want to open," he said. "They always tried to put on a happy face for me. Still, I grew up with fear."

"This study is important because it's a moral message for people to understand," Niederman said. "When people kill, regardless for creed or religion, they're not only punishing him but also his future generations."

## **Dalena Hoang**

 [Dalena Hoang in New York City on Oct. 26, 2015. Her mother was disfigured by Agent Orange and her father was a soldier in the South Vietnamese army who fought the Khmer Rouge. \(Samira Bouaou/Epoch Times\)](#)

Dalena Hoang in New York City on Oct. 26, 2015. Her mother was disfigured by Agent Orange and her father was a soldier in the South Vietnamese army who fought the Khmer Rouge. (Samira Bouaou/Epoch Times)

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At Dalena Hoang's childhood home in the Bronx, their freezer was always on the verge of bursting.

“My mom buys food constantly. The fridge is so full. But she still buys food,” Hoang said. “She fears not having enough.”

Hoang’s mother was deformed by Agent Orange in Vietnam. With the memory of conflict and poverty still fresh in her mind, she often stares into the distance with a worried expression.

“People say I’m just like my mother,” Hoang said. “I have problems dealing with stressful situations. My heart beats fast. It feels like an anxiety disorder. It’s hard for me to connect with people.”

 [Cambodians flee Khmer Rouge insurgents during artillery shelling of Phnom Penh on Jan. 28, 1974. \(AP Photo\)](#)

Cambodians flee Khmer Rouge insurgents during artillery shelling of Phnom Penh on Jan. 28, 1974. (AP Photo)

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“I worry about myself,” she said. “How do I not pass it on to the next generation?”

In her spare time, Hoang meets with other Southeast Asian youths at a nondescript office in the basement of a residential building in the Bronx. It is the office of Mekong, a nonprofit that advocates for Southeast Asians in New York City.

At Mekong, Southeast Asian youths gather to organize and learn about their histories. They discuss topics that vary from the history of the Cambodian Civil War to U.S. deportation of South Asian refugees. Their conversations often land on the subject of healing and intergenerational trauma.

“Intergenerational trauma is what guided us from the beginning,” said Mekong’s founder Chhaya Choum, who lived the first seven years of her life in a Cambodian refugee camp. “To not recognize it, would be a huge misstep.”

**CORRECTION:** An earlier version of the article incorrectly stated what decade Anoush Ter Taulian attended college. She attended University of California- Los Angeles in the '60's. She later transferred to University of California-Berkeley and graduated in 1975. Epoch Times regrets the error.



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