

BLUE SKIES FACULTY FOLIO

INSPIRED





Triumph over Terror

How the 9-11 attacks led to the study of PTSD and the reduction of suicide risks

Tuesday, September 11, 2001, was a warm, clear morning in Basking Ridge, New Jersey, a quiet town of fewer than 30,000 people about 40 miles west of New York City. Many of its residents worked in the city and had left for or arrived at work when, at 8:46 a.m., American Airlines Flight 11 crashed into the North Tower of the World Trade Center. Seventeen minutes later, United Airlines Flight 175 smashed into the South Tower of the Center.

The planned attacks killed thousands that day and the history of the United States and the world were forever changed. So too were the lives of innumerable people left to mourn and ponder the meaning of the disaster. Back in Basking Ridge, one of those was 11-year-old Ian Stanley, the son of bankers. His father worked on Wall Street, about a mile from where the towers

collapsed into swirls of choking dust and mounds of smoking rubble.

“IT WAS A WATERSHED MOMENT,” STANLEY RECALLED. “I LIVED IN A TOWN WHERE MANY OF MY CLASSMATES’ PARENTS WORKED IN NEW YORK CITY AND ON WALL STREET.”

The human and emotional losses of the 9-11 attacks were not abstractions for Stanley. He estimated that his father, who had once worked in the towers, lost 75 friends and former coworkers who were in the buildings that day. One of them was his father’s best friend, someone Ian considered an uncle. He remembers attending several funerals of family friends in the aftermath of the deadly day and



seeing the numbing emotional toll the losses took on his parents.

ECHOS OF 9-11

More than 20 years later, the reverberations of the tragedy still influence Stanley's life. But the haunting experience of the 9-11 shock and other brushes with trauma have spurred him to find effective ways to help others – especially military members, firefighters, emergency medical services workers and others – address the potentially crippling emotional consequences of repeated and unaddressed exposure to stress, most notably post-traumatic stress disorder (PTSD).

CONNECTING FIREARMS, PTSD AND SUICIDE RISKS

Stanley is associate professor in the Department of Emergency Medicine at the University of Colorado School of Medicine and Psychological Health Lead for the CU Center for Combat Medicine and Battlefield (COMBAT) Research, a

collaboration between the university and military stakeholders that aims to find solutions for the biggest medical challenges faced by the Department of Defense (DoD).

Chief among those is preventing suicide by service members. "It's a top priority of DoD," Stanley said, noting the suicide rate rose sharply among active-duty military members after the 9-11 attacks and the years of overseas war that followed.

"Up until that time, the suicide rate was much lower among active-duty service members. Now it's comparable to the general population," Stanley said.

The availability of firearms adds a layer of suicide risk for members of the military, he added. An estimated 50% of suicides in the general population involve a firearm, compared with up to 80% among military members, he said. Finding ways to reduce that risk, such as secure firearm storage, is one of his key areas of research.

The damaging effects of trauma

are not confined to the military or others in high-stress jobs, Stanley emphasized. From a personal perspective, he is among those who have seen and experienced the blunt effects of trauma. He lost a cousin and a high school friend to suicide.

"Most people have had the awful experience of knowing someone who has either died by suicide or has struggled with suicidal thoughts or mental health challenges, whether that is depression, PTSD, bipolar disorder, addiction or alcoholism," Stanley said. "A lot of times these challenges happen behind the scenes, and we might not know it, but they affect families and communities."

By contrast, as a young man he witnessed the strength of a neighbor who shared his story of alcoholism and recovery. Stanley joined his parents at the man's 10th anniversary sobriety celebration.

"It was him and others sharing their stories of open recovery, which I found remarkable," Stanley said. It also was another early influence on his interest in psychology.

"I LEARNED WHAT IT'S LIKE TO BE HIJACKED BY A DRUG BUT ALSO THAT WITH THE RIGHT TREATMENT, FAMILY AND SOCIAL SUPPORT, PEOPLE CAN PUSH THROUGH HELL AND GET TO THE OTHER SIDE," HE SAID.

The experience indirectly helped lead him toward a career in psychology. He was a freshman at the University of Rochester and undecided on a field of study – although he knew he didn't want to be a banker, much to his

parents' delight – when he got an assignment to do a research project. He chose to explore anonymity in drug and alcohol recovery programs and “got really intrigued by it.” A bachelor's degree in psychology followed, in 2012.

That degree eventually led to a master's degree and PhD in clinical psychology at Florida State University, but in between he took important detours that helped to define and strengthen his research. He spent a year as a research assistant at the National Institute of Mental Health studying suicide prevention and another year at Johns Hopkins, where he focused on the psychology of older adults.

His interest in suicide prevention was cemented at Florida State by his PhD advisor, Dr. Thomas Joiner, whom Stanley described as a “luminary” in the field. Joiner's father's suicide led him to take a “compassionate approach” to the difficult subject, Stanley said.

“What Thomas taught me was that science is a great vehicle for change and for making the world a better place,” he said.

In addition, Joiner at the time was funded by the DoD to co-direct the Military Suicide Research Consortium, leading Stanley into research work in suicide prevention among military service members. He also explored suicide and PTSD risk among firefighters and ways to address firearm storage and reduce the risk of harm among gun owners. He was to frame his PhD dissertation around that topic.

Before arriving at CU's Department of Emergency Medicine in 2022, Stanley wove the interests he developed at Florida State together with a post-doctoral research



fellowship and full-time position as a clinical psychologist at the National Center for PTSD, which is part of the U.S. Department of Veterans Affairs.

“I STUDIED THE INTERSECTION BETWEEN PTSD AND SUICIDE RISK,” STANLEY SAID. “IN MANY WAYS IT SHAPED MY [PRESENT] RESEARCH PROGRAM, WHERE I HAVE INCORPORATED FIREARMS, TRAUMA, THREAT SENSITIVITIES AND PTSD [AS RISKS].”

He also currently works with his former fellowship advisor, Dr. Brian Marx, on adapting a PTSD treatment to prevent suicide in the military.

As Psychological Health Lead with COMBAT, Stanley continues to work with DoD to confront the factors that increase the risk of suicide, including PTSD. But he emphasizes that PTSD is not inevitable. People are exposed to trauma every day, often en masse, as was true on 9-11. Stanley strives in his work to help people build resilience and connections with others that can shield them from the damaging effects of long-term stress.

“We know people are going to be exposed to trauma. That's life,” he said. “But how do we prevent that progression from trauma to developing PTSD? That is where a lot of our work is going. You can prevent the grasp that trauma has on someone's life.” ■



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IMPACT

Quest to Understand Trauma

Research to help identify the link between trauma and PTSD behavioral responses

Ian Stanley was a graduate student in psychology at Florida State University in Tallahassee in 2015 when a clinical rotation sent him about an hour west along the state's northern panhandle to see patients at a Veterans Affairs community-based outpatient clinic (CBOC). The short trip proved to be an important leg of his path to personal and professional development.

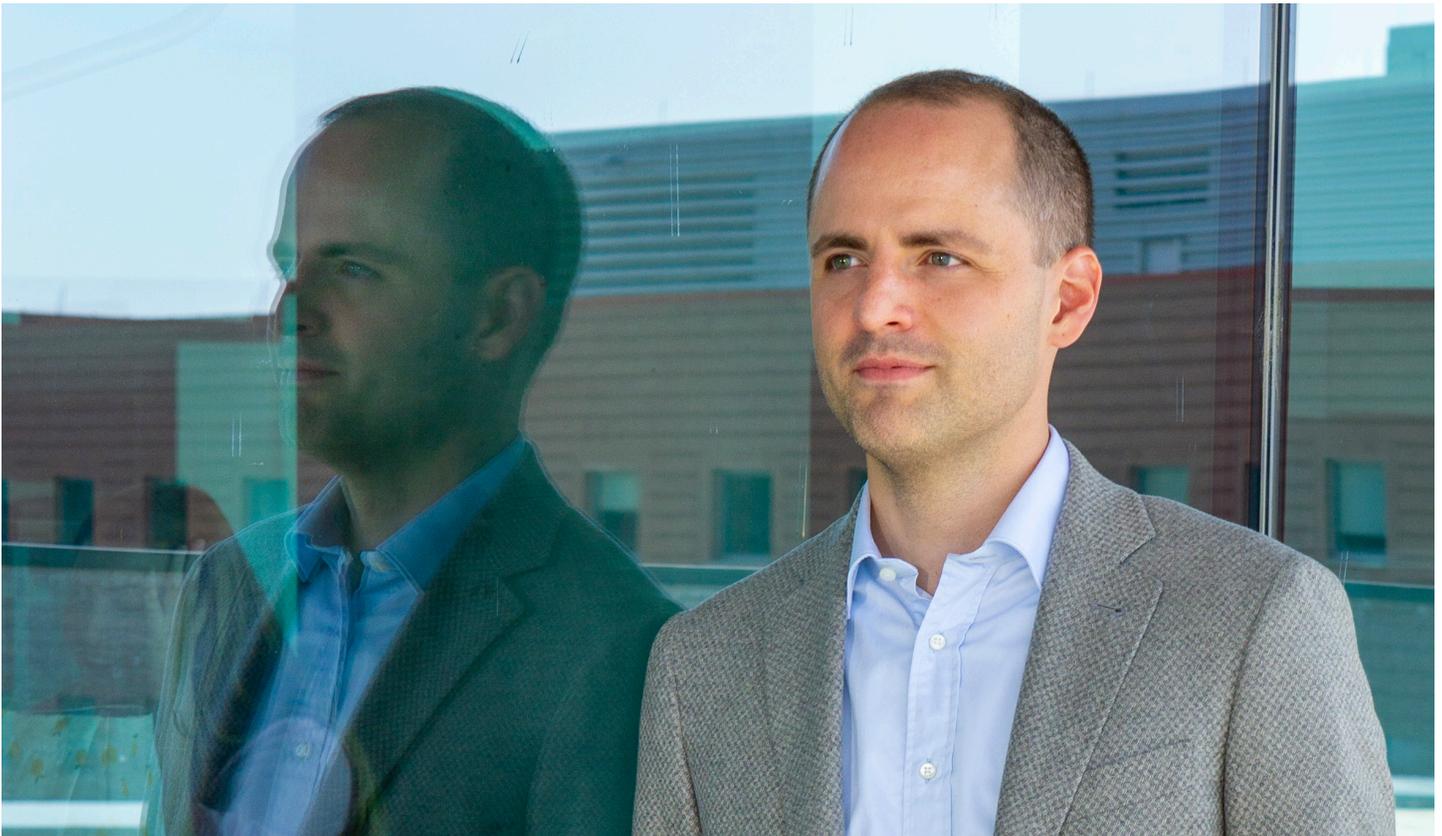
In Tallahassee, Stanley was already geographically, culturally and politically distant from his hometown of Basking Ridge, New Jersey, a New York City suburb. Driving deeper into the panhandle took him even farther from his upbringing but also expanded his view of the world.

FIREARM OWNERSHIP CONNECTION

During risk assessments with patients, Stanley was surprised to learn that most of them owned

large numbers of guns – a major concern because firearms are used in the vast majority of suicides in the United States. Stanley realized that his life in New Jersey had given him very little experience with firearms. He was unprepared to talk productively with patients – particularly those struggling with mental health challenges and suicidal thoughts – about secure firearm storage and other risk-reduction measures.

Around that time, Stanley read a highly influential editorial published in the Journal of the American Medical Association by Dr. Emmy Betz, professor of Emergency Medicine at the University of Colorado School of Medicine and director of the Firearm Injury Prevention Initiative (FIPI) on the University of Colorado Anschutz Medical Campus (profiled in prior Blue Skies issue).





In the editorial, Betz argued for clinicians to develop the “cultural competency” necessary to listen openly to their patients’ real-life experiences, values and issues while also asking them about their firearm ownership and helping them to understand their injury risks and ways to prevent them.

“I was enthralled by the article,” Stanley said. Betz’s observations dovetailed perfectly with his experience at the Florida CBOC, he added.

“IT TAUGHT ME THAT AS A CLINICIAN, I DON’T ALWAYS NEED TO KNOW THE ANSWERS BECAUSE IN MANY WAYS MY PATIENTS [DO],” HE SAID. “IT’S A MATTER OF SUPPORTING THEM AND HELPING THEM TO IDENTIFY THEIR OPTIONS WHILE STAYING HUMBLE.”

Stanley not only built his PhD dissertation around Betz’s major concern – the importance of

addressing secure firearm storage with gun owners – he became her colleague when he joined the CU Emergency Medicine faculty in 2022. He also collaborates with Betz as Military and Veteran Lead for FIPI.

Firearm safety remains a focus of Stanley’s research, but it is one piece of his larger effort to address the damaging impact of repeated trauma, especially among military members, emergency medical service (EMS) workers, firefighters, law enforcement and others performing high-stress jobs.

LINKING TRAUMA EXPOSURE

That work also began during his graduate work in Florida. Stanley led a study funded by the National Fallen Firefighters Foundation (NFFF), a congressionally chartered nonprofit that develops programs to recognize firefighters who died during service and to support their families.

The 2015 grant charged researchers with probing suicidal thoughts and behaviors among firefighters, said Stanley. He led a study of more than 1,000 of these workers, whose reputed stoicism often masked the psychological effects of seeing catastrophic damage, injury and death.

A key conclusion of the grant research was that repeated exposure to trauma increased the risk of suicide for firefighters, Stanley said.

The work with the NFFF helps to inform Stanley’s present role as Psychological Health Lead for the CU Center for Combat Medicine and Battlefield (COMBAT) Research, a collaboration between the university and military stakeholders.

COMBAT researchers confront major medical challenges faced by the Department of Defense (DoD), including suicide among service members.

Stanley currently leads a four-year, \$3 million DoD initiative to provide specialized secure firearms storage counseling to individuals with post-traumatic stress disorder (PTSD). The intervention, Firearm Safety and PTSD (FaSP), builds on the elements of Project Safe Guard, an approach developed by Dr. Michael Anestis of Rutgers University to provide such counseling to military members.

A clinical trial led by Anestis of the Project Safe Guard strategy with members of the Mississippi National Guard in 2020 showed some success in changing firearm storage practices. Anestis, Stanley, Betz and others then led a Project Safe Guard intervention at Buckley Space Force Base in Aurora that tested a peer-delivered adaptation of the intervention in a military context.

The Buckley project also reinforced his formative experience in the Florida panhandle. “For so long [firearm safety information] has been thought of as exclusively a clinician-delivered intervention,” Stanley said. “But what we’re hearing from service members is that some may be more likely to listen to a buddy than a clinician.”

PTSD COMPLEXITY

During studies of Project Safe Guard, however, Stanley and Anestis noticed a weakness: the one-on-one approach did not work as well with individuals with PTSD. These people, they found, often have a “threat sensitivity” that produces a “hypervigilance” and the need to keep loaded firearms at the

ready to guard against perceived threats.

“I’ve found that a lot of times, following a traumatic exposure, people change the way they store their firearms, because they give them an outsized sense of security,” Stanley said. The close presence of loaded firearms is a major problem for people with PTSD, which is a major suicide risk, as well as for family members and others who might be harmed by unsecured weapons, he added.

The FaSP program includes the elements of Project Safe Guard, but adds “trauma-informed” psychological education that “helps people to become more aware of their behavioral responses to their PTSD,” Stanley said.

Stanley emphasized that while there are effective treatments for PTSD and other mental health issues, they are lengthy and difficult for patients to maintain. His ultimate goal is to find strategies that prevent problems from progressing to PTSD in the first place. He said, for example, that those who learn to build emotional resilience – an area of work by another Emergency Medicine and COMBAT colleague, Dr. Kathleen Flarity (profiled in prior Blue Skies issue) – can more successfully endure even the most serious emotional and mental challenges.

“Trauma exposure itself doesn’t inherently lead to bad outcomes,” Stanley said.

“PEOPLE SAY YOU CAN NEVER PREVENT TRAUMA, AND THAT’S TRUE. BUT YOU CAN PREVENT THE GRASP THAT TRAUMA HAS ON SOMEONE’S LIFE.”

COLLABORATING ON EMS RESEARCH

Another recent area of attention and collaboration for Stanley has been investigating the psychological health of emergency medical technicians and paramedics in Colorado. He works in that area with Emergency Medicine faculty colleague, Dr. Angela Wright, who is also medical director of Emergency Medical Services (EMS) at UCHHealth University of Colorado Hospital and EMS medical director for the state of Colorado (profiled in this issue).

Stanley and Wright united their respective training and field work in clinical psychology and EMS operations to create a community advisory board that included eight EMS clinicians from around the state. These clinicians also represented different areas of EMS delivery, including flight, fire, hospital, and volunteer. The goal: develop recommendations from these first-line responders to address their job-related mental health challenges.

The recommendations spanned increasing funding for EMS-specific research and mental health resources; distributing information on secure firearm storage; developing peer support teams, and more.

“We wanted to make sure all their voices were heard,” Stanley said. “We in the [Emergency Medicine] Department at CU have the capabilities to do this research. The job of the EMS folks is to respond to emergencies, so we wanted to figure out how can we help meet these needs for them.”

Working with Wright and the EMS representatives has helped to expand his view of mental health,



Stanley added.

“This is an opportunity to hear from folks on the ground,” he said. “And the collaboration with Angie is so helpful because she has the trust of the community, being a member of it herself. This is how we conduct practice-changing research.” ■