Chapter 30

Prevention of Lasting Traumatization in Direct and Indirect Victims of Terrorism

Shannon Nash

In the wake of a terrorist attack there is an expectation of trauma after such purposeful and unpredictable violence. The nature of terrorism itself perpetuates fear, paranoia, and anxiety. However, there is immense variability in response to trauma, both immediately and over time. Studies on direct and proximal exposure to attacks, as well as individual response to terrorism and indirect exposure, demonstrate that the impact of terrorist attacks is not limited to those directly affected by it. This chapter reviews the findings of important studies and practical efforts to anticipate and reduce risk factors contributing to lasting traumatization of terrorist victims. Several areas of focus emerge in the literature involving major national traumas, first responders, children, the media, and community support. In addition, it is important to understand the experience of others who have faced such trauma and have built resilience. This includes countries which have faced chronic terrorism and decades of war that have left citizens profoundly affected, psychologically and socially. Important gaps remain in our understanding of lasting traumatization in direct and indirect victims of terrorism. This chapter identifies a variety of flexible responses and mental health strategies which include: support for first responders, promotion of resilience in children, media delivery and consumption, and rapidly adapting community-based initiatives. It is a challenge to rely on hypotheticals in disaster planning, but preparation both before and after an attack occurs contribute toward effective, abiding responses that can be built into permanent infrastructures and public health models.

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On 7 August 1998, Mohamed Rashed Daoud al 'Owhali and Jihad Mohammed Ali (aka Azzam) arrived at the parking lot behind the American embassy in Nairobi, Kenya. When the embassy security guard refused to open the gate al 'Owhali hurled grenades at him.[1] The guard shouted "Break! Base! Terrorism" in his radio and then he ran, leaving the drop bar down.[2] Azzam fired a handgun toward the embassy in order to draw its occupants to the windows and at one point he began shouting out of the truck window.[3] Al 'Owhali threw his flash grenades, but the guards refused to open the gate. Without getting past the guards, at 10:35 a.m. Azzam detonated the bomb. The truck was pulled parallel to the embassy and the blast demolished a multi-storey secretarial college and severely damaged the US embassy building and the Co-operative Bank Building. In 1998 the US embassy in Nairobi had about 200 people present at any one time. Most of the people who worked for the embassy were Kenyans, called Foreign Service Nationals.[4] There were also American employees and contractors, part-time employees, and interns, college students, and high school students from a summer hire program.[5] The attack perpetrated by Al-Qaeda operatives killed 213 people, including 44 embassy employees (12 Americans and 32 Foreign Service National employees). More than 4,000 people were injured at the embassy and in the vicinity.[6]

The faces of those persons who ran to the windows after Azzam's gunshots were hit by broken glass when the bomb went off.[7] US Ambassador Prudence Bushnell described the moments immediately following the blast, saying, "I was thrown back, and although I didn't think at the time I was unconscious, I must have been because when I brought myself back to reality, I was sitting down with my hands over my head because the ceiling was falling down."[8] Once out of the building, she described that what she first saw on the street: "A lot of glass, lot of glass, twisted pieces of charred metal…I looked up and saw burning vehicles. I saw the charred remains of what was once a human being. I saw the back of the building completely ripped off, and utter destruction."[9] According to Donald Sachtleben, chief forensic adviser with the FBI, "The rear of the embassy … was just devastated. Every window was blown out. The cement or brick work that was along the face of the wall of the embassy had numerous places where there appeared to be high velocity impact, that is, there were holes or cracks in the wall. I could see window frames that were just actually twisted right out of the wall itself."[10] While this horror was unfolding in Nairobi, operatives from the East African Al-Qaeda cell in Dar es Salaam simultaneously detonated a bomb at the US embassy in Tanzania, killing 11 people, all Africans, and injured more than 85 people, including Americans.[11]

At the October 2001 sentencing hearing in New York City of the Al-Qaeda perpetrators of the bombings, victim impact statements presented chilling accounts of the trauma inflicted that day and beyond. One of them, Howard Kravaler, testified about recurring "flashbacks of the bombing and my vain attempts to locate my wife's remains … the carnage of the 11th of September has only served to exacerbate these nightmarish memories."[12] Frank Pressley was injured in the bombing and he refers to the three years since the attack as "nothing but hell" with health complications and "tremendous nightmares for several years."[13] Frank's wife Yasemin, who was pregnant at the time, also worked at the embassy and although she was not injured, she came out of the building to see her husband in unbelievable condition. Frank testified that the years since "have been nothing but a long nightmare" for both of them.[14] Such stories put a human face to the traumatization from exposure to terrorism.

Lee Ann Ross worked at the US Agency for International Development (USAID) in Nairobi in August 1998. She recalls embassy colleagues first fleeing the building to make sure they are alive and then going back in to pull out their dead or injured colleagues.[15] Lee Ann ran the operations center that day and she lost her best friend in the attack. In the aftermath, tasks like going to hospitals to identify the dead and injured and telling distressed relatives by phone who is alive and who is dead were done only by volunteers. "I could never order anyone to do this, knowing the trauma they are about to experience," she explained.[16] Lee Ann called all of the counsellors she knew in town to ask for help and two regional State Department

psychiatrists arrived the next day. Eventually there was a disaster relief package set up for the Kenyan victims.[17] The adrenaline kept her going for a couple of weeks, then the nightmares started Working overtime, denial became the antidote.[18] Furthermore, she lamented, "We are asked to do anything and everything, except be victims … (…) The implicit message has been pretty clear, Foreign Service Officers are not supposed to be affected by trauma."[19] She retired three years later and moved back to the US, went on antidepressants, had a lot of somatization, and began seeing a counsellor again. Years after the bombing, Lee Ann started to deal with the Nairobi trauma.[20]

According to the academic consensus definition, terrorism is "calculated, demonstrative direct violent action" that targets mainly civilians and non-combatants and it is "performed for its propagandistic and psychological effects on various audiences."[21] Due to the nature of this purposeful and unpredictable violence, the psychological trauma terrorism inflicts is unavoidable. While some of the effects of trauma - like nightmares or flashbacks after an attack like the Nairobi bombings are common, responses can vary over both time and space after such a traumatic event. There is variability in the responses to trauma and the impact of terrorist attacks are not limited to those directly affected by the violence. Terrorism is fear-generating violence.[22] The indirect strategy of terrorism also means that the immediate victim is not the main or ultimate target.[23] As Alex Schmid indicated in the second chapter of this volume, the use of violence against certain individuals or groups serves to intimidate or coerce and, as a message generator, it reaches an audience much larger than direct victims or local witnesses.[24] When exploring "trauma" and "terrorism" Michael C. Frank argues that terror works in the opposite temporal direction of trauma. "Put simply" Frank says, "trauma is the unintentional (re)experiencing of past violence, whereas terror is the fearful anticipation of future violence – based on, and initiated by, the occurrence of violence in the past."[25] There is infliction of wounds from attacks themselves, but there is also trauma projected forward in the form of scenarios even worse and therefore, as Derrida put it, "the wound remains open by our terror before the *future* and not only the past."[26]

It is inevitable that direct and indirect victims of terrorism will have feelings of intense fear and be traumatized. However, the lasting effects of trauma can be softened and even prevented with pro-active and pre-emptive measures to reduce the risks of permanent traumatization of direct and indirect victims of terrorism. This chapter will provide a snapshot of the vast literature on terrorism and trauma and offer a brief overview of important findings. It concludes with a summary of suggestions from the literature with a focus on prevention and preparedness measures that could reduce the lasting effects of trauma in direct and indirect victims of terrorism. This author's background is in history and it is through an historical and contemporary analytical lens that the study has been conducted. This is not a comprehensive survey of the field of terrorism and trauma, neither geographically nor historically inclusive, however, this chapter synthesizes several important themes that emerge from a selection of studies from the field and brings forward preventative measures informed by the literature. This chapter is informed by, and builds on of the comprehensive scholarship available in *The Trauma of Terrorism: Sharing Knowledge and Shared Care, An International Handbook*, edited in 2005 by Yael Danieli, Danny Brom, and Joe Sills.

First the chapter begins with a discussion on the variability in response to trauma. A review of the literature informs how we conceptualize victims of terrorism and explore the effects of trauma with direct and indirect exposure. The 9/11 attacks prove to be an important case study here. Next, the chapter looks at cases of repeated chronic terrorism and lessons in resilience. Case studies here include the Al Aqsa Intifada in Israel, ZAKA body handlers, ethnic warfare in Sri Lanka, and Holocaust victims. The final section of this chapter looks at a selection of attempts by relevant experts to address the lasting traumatization of victims, especially the experiences of those who faced trauma and built resilience. A case is made for prioritizing strengthening the resilience and preparedness of potential victims and the employment, social,

and healthcare constructs within which they operate. The author offers suggestions for responses and mental health strategies, including feasible prevention and preparedness measures that have been or can be taken to reduce the risk of lasting traumatization. These suggestions focus on early support for first responders, supporting resilience in children, media delivery and consumption, and community resilience and community-based initiatives. It is impossible to anticipate every scenario in disaster planning, but, in general, responses to terrorism must prepare for phases of response both before and after an attack occurs.

Victims of Terrorism: Direct and Indirect Exposure

On the morning of 11 September 2001, hijackers carrying small knives, box cutters, and cans of mace- or pepper-spray took control of four aircrafts and flew two of them into the North and South Towers of the World Trade Centre in Lower Manhattan and one inthe western side of the Pentagon in Washington DC.[27] The fourth plane crashed into a field in southern Pennsylvania after passengers intervened and launched an assault on the cockpit.[28] More than 2,600 people died at the World Trade Centre after both towers collapsed less than 90 minutes after the second impact; 125 died at the Pentagon and 256 died on the four planes.[29] The *9/11 Commission Report* - one of the largest criminal investigations in history - refers in its 2004 report to 9/11 as a day of "unprecedented shock and suffering in the history of the United States."[30] Television coverage of the events that day was immediate, graphic, and pervasive.[31] People not physically present at the scene of crime witnessed on television horrific scenes of airplanes flying into buildings, the towers collapsing, and the aftermath of the plane crashes. Stories of Americans going to work or flying to visit Disneyland when tragedy struck; chilling audio recordings of last phone calls from the airplanes; visuals of unrecognizable first responders covered in dust and debris; videos of individuals jumping from the towers with the reactions of horrified bystanders below; and missing person posters wallpapering parts of New York City.

Empirical information about psychological reactions to 9/11 became available quickly after the attacks. In the days that followed, Mark A. Schuster et al. assessed the immediate mental health effects of the attacks by conducting a nationally representative survey of 560 adults. The interviews surveyed participants' reactions to the terrorist attacks and their perceptions of their children's reactions to investigate how people who were not present at a traumatic event may experience stress reactions, thus exploring the effects of terrorism on indirect victims. This study found that 44 percent of the adults sampled experienced at least one of five substantial stress symptoms since the attacks and 90 percent reported at least low levels of stress symptoms.[32] Thirty-five percent of parents reported that their children had at least one of five stress symptoms and 47 percent reported their children worried about their own safety or the safety of loved ones.[33] The study found that adults coped with stress symptoms in various ways such as talking with others (98 percent), turning to religion (90 percent), participating in group activities (60 percent), and making donations (36 percent).[34]

As informed by previous studies of trauma and disaster, "Catastrophes can have a pronounced effect on adults who are not physically present."[35] In their study, the authors found that the "potential for personalizing the 9/11 attacks was large, even for those who were thousands of miles away at the time. Although the people we surveyed who were closest to New York had the highest rate of substantial stress reactions, others throughout the country, in large and small communities, also reported substantial stress reactions."[36] This study found that the level of stress was associated with the extent of television viewing (which will be explored later in this chapter) and found that it may have served as a method of coping for some people, but for others, particularly children, media consumption may have exacerbated or caused stress.[37] Furthermore, Schuster et al. explained that many respondents anticipated future attacks and noted that "When people are anticipating disaster, their fears can worsen

existing symptoms and cause new ones."[38] Roxane Cohen Silver et al. conducted a longitudinal investigation of psychological responses to 9/11, with a US national probability sample, and found significant psychological reactions across the US after 9/11. This study's findings strongly suggest that substantial effects of the events of 9/11 rippled throughout the country and "many individuals who were not directly exposed to the attacks reported symptoms both acutely and over the year afterwards at levels that were comparable to those individuals who experienced the attacks proximally and directly."[39] According to Cohen Silver and colleagues, "the requirement of direct and proximal exposure to the attacks and the expectation of a dose-response relationship between exposure and traumatic stress response are myths."[40]

While there are psychological effects of indirect exposure to mass violence, physical proximity to traumatic events is related to an increased likelihood of experiencing traumatic symptoms. A nationally representative, web-based epidemiological study conducted by William E. Schlenger et al. examined the association between stress symptoms one to two months after the attacks and indices of exposure to the event. This study found that the prevalence of probable Post-Traumatic Stress Disorder (PTSD) "was significantly higher in the New York City metropolitan area (11.2%) than in Washington, DC (2.7%), other metropolitan areas (3.6%), and the rest of the country (4.0%) … However, overall distress levels in the country were within normal ranges."[41] In a summary of the main findings from the empirical literature that assessed the psychological impact of the 9/11 attacks, Schlenger found that "Initial cross-sectional findings showed that many adults in the US were deeply disturbed by the attacks, but subsequent longitudinal findings suggested that much of the distress documented in the initial assessments was self-limiting (i.e. resolved over time without professional treatment."[42] According to Schlenger, "studies focusing on clinically significant symptoms and probable disorder prevalence generally showed that probable PTSD prevalence was strongly associated with direct exposure (or 'connection') to the attacks, and that the PTSD problem following the attacks was concentrated in the New York metropolitan area."[43] The studies that retrospectively assessed pre-9/11 exposure to traumatic events also found that such exposure was an important risk factor for developing PTSD after the attacks.[44] Schlenger acknowledges the importance of these initial studies but cautioned that they must be considered preliminary.

In an effort to better understand the lasting traumatization of 9/11, A. Lowell et al. published in 2017 a systematic review of the available longitudinal information about the trajectories of 9/11-related PTSD among exposed populations as a unique data set. Drawing from the work of previous studies, Lowell and colleagues describe PTSD as "a disabling, maladaptive reaction to traumatic stress with significant functional impairment and comorbidity."[45] The study's goal was to "clarify the longitudinal prevalence, course, and correlates of PTSD in high-exposure populations during the 15 years since 9/11."[46] The authors drew a number of important conclusions:

> "Overall prevalence of PTSD following 9/11 appears to be relatively high in the period directly following the attacks, particularly for those with the greatest levels of traumatic exposure. These rates appear to decline over time for the majority. The exception is first responders and rescue/recovery workers, who appear to have had lower PTSD prevalence than other populations in the first 3 years following 9/11, but show substantial increase in prevalence after that point."[47]

Available studies (which are limited) suggest that PTSD rates may peak at five or six years post-9/11 for first responders and rescue/recovery workers.[48] Prevalence of PTSD among non-traditional responders (e.g. volunteers) is markedly higher than for traditional ones (e.g. police and firefighters).[49] Lowell et al. postulate that initially lower rates of PTSD that increase over

time may result from traditional responders' "resistance to help-seeking behavior and under-reporting, and possibly due to the nature of training and preparedness."[50] The study also suggests that the higher prevalence of PTSD among non-traditional responders could be explained by lower levels of training and support that leads to greater vulnerability.[51] The study confirmed that exposure intensity is a primary risk factor and, in longitudinal studies involving first responders' 9/11-related injury and job loss, were identified as important factors in the chronicity of PTSD.[52]

In 2001, and over the following decade, the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV/-TR) classified PTSD in the anxiety disorders category and some experts criticized the criteria for exposure to trauma as being too inclusive. Evidence emerged that multiple emotions, like guilt, shame, and anger, placed it outside of the fear/anxiety spectrum.[53] The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), released in 2013, made the conceptual change of putting PTSD in a new diagnostic category "Trauma and Stressor-related Disorder." The DSM-5 provides four qualifying exposure types in Criterion A for PTSD: 1) direct personal exposure, 2) witnessing trauma to others, 3) indirect exposure through trauma experience of a family member or other close associate, and, the recently added, 4) repeated or extreme exposure to aversive details of a traumatic event, which applies to workers who encounter the consequences of traumatic events, such as military mortuary workers and forensic child abuse investigators.[54] Both direct and indirect victims of terrorism are at risk of lasting traumatization, particularly those who meet Criterion A for PTSD in the DSM-5. The DSM-IV/-TR (1994 edition) used the phrase "experienced, witnessed, or was confronted with" to refer to three qualifying exposure types, but the ambiguous "confronted with", in apparent reference to indirect exposure through close associates, has been removed in the DSM-5 exposure to trauma definition.[55] While the DSM-IV/-TR "did not specify whether witnessed exposures had to be in person, or whether media reports could constitute a witnessed exposure," the DSM-5 clearly states that witnessing the trauma of others must be "in person."[56] Furthermore, the DSM-5 narrows the exposure through media wherein it specifies that the criteria for exposure "does not apply to exposure through electronic media, television, movies or pictures unless it is work-related."[57] However, using an unspecified definition of witnessed trauma exposure in the years after 9/11, research studies counted media reports, which greatly broadened who could be considered trauma-exposed by 9/11. Studies such as the one conducted by Schlenger et al. found, therefore, nationwide incidences of "probable PTSD" at a 4 percent level.[58] According to Anushka Pai et al., "The consequences of imprecise definitions of trauma and exposure to it are particularly extensive when large populations with non-qualifying trauma exposures are considered trauma-exposed for the purposes of measuring symptoms."[59]

This chapter will focus more specifically on PTSD, but the psychological effects of terrorism are not limited to PTSD and can include disorders and comorbid conditions, including Major Depressive Disorder (MDD), Generalized Anxiety Disorder (GAD), Complicated Grief (CG), affective disorders, aggressive behavior and conduct problems, substance use, and sub-clinical psychological distress.[60]

The DSM-5 criterion for PTSD includes both direct and indirect as qualifying exposure to types to trauma. For 9/11-related PTSD, the most consistently documented correlates of PTSD across studies were based on exposure to the event. Yuval Neria et al. explain that "In particular, loss of life of significant others, physical injury, and immediate risk of life were especially predictive of PTSD. Therefore, across samples and studies, survivors and direct victims of the attacks were consistently shown to have increased risk of PTSD compared with individuals in the community."[61] The 9/11 attacks were traumatizing to a great number of people, as the attacks exposed Americans to their vulnerability and the attacks were on a scale few thought possible.[62] Most or all Americans identified with the victims of 9/11 and perceived the attacks as directed at them as well.[63] The psychological effects of the attacks were

exacerbated by recurrent triggers, fears of a second-wave of attacks, and ongoing threats that could be local. Michael C. Frank frames the terror caused by terrorism as "a halfway house between the real (actual attacks and their tangible aftermath) and the imaginary (possible future assaults)."[64] Traumas in general are random, unpredictable and uncontrollable, but terrorism is unique in the way that it adds a faceless enemy, with ideological undertones, whose specific goal is to create ongoing anxiety in the populace.[65] The terror inflicted by terrorism is far-reaching, but the lasting traumatization of direct and indirect victims is centered on highly exposed individuals. As drawn from the DSM-5, those who suffer from PTSD were directly exposed through personal exposure, witnessing trauma to others, indirect exposure through the traumatic experience of someone close to them, or extreme exposure to details of a trauma through work. This chapter focuses on these victims to explore what we can learn from the experience of those who have endured such trauma and found resilience. The main focus is on practical efforts that can aid in the prevention of lasting traumatization.

Repeated Chronic Terrorism and Lessons for Resilience

Studying major national traumas and lasting traumatization begs the question: how do individuals and communities cope with living under the constant threat of man-made violence? There is extensive and important literature on victims of terrorism in ongoing conflict and there is much we can learn from these studies. The following examples have lessons for both resilience (focuses on assets and resources that serve a protective purpose in adverse conditions) and for coping mechanisms (emphasize what a person ought to do when encountering stress).[66] An example of one such study is the work of Eli Somer et al. who examined the 2001-2002 Palestinian terrorist campaign (Al Aqsa Intifada) against Israel's heartland. It killed over 1,000 Israelis in a prolonged series of terrorist attacks that included shooting incidents, car bombings, and suicide bombings.[67] At the peak of the violence, Somer et al. interviewed citizens residing in areas highly affected by the violence. In line with studies on the psychological responses to the 9/11 attacks, Somer et al. found that "Although citizens residing in the most severely hit locales were also those who suffered most from posttraumatic symptoms, the effects of major national trauma were not limited to those directly affected by it", further suggesting "that objective measures of exposure or loss may not be sensitive predictors of reactive distress."[68] The authors explain that little is known on the effects of repeated disasters on the mood of the general citizenry. In their study, Somer et al. found that national mood or demoralization appeared to be unrelated to the level of exposure to terrorism in Israel. Furthermore, those traumatized directly were no more likely to develop a negative mood than other citizens. However, the study found that, counter-intuitively, the mood was not worse in the hardest-hit parts of the country but rather among the interviewees sampled from a remote region in Israel, namely the desert resort city of Eilat. The authors posit that national identification with the suffering in Israel's heartland, exposure to media coverage of events, combined with an economic crisis in the resort city and less social solidarity and community cohesion, may have contributed to this outcome.[69]

An interesting finding emerged from a study conducted by Zahava Solomon and Rony Berger on ZAKA (Hebrew initials for "Identification of disaster victims"), a voluntary religious organization that is part of the Israeli rescue forces that played a prominent role in body removal and first aid treatment in the aftermath of the Al Aqsa Intifada terrorist attacks. The authors found "a very low level of psychological distress among ZAKA volunteers" with only 2 percent reporting post-traumatic symptoms.[70] Their findings "negate the notion that ZAKA rescue workers are at increased risk for psychopathology" and "suggest that despite their intense and repeated exposure, these men are particularly resilient."[71] Solomon and Berger suggested several factors accounting for this finding. First, ZAKA work involves recurrent exposure to horrific scenes, but there are also positive feelings that stem from

altruistic and religious extrinsic rewards. Second, self-esteem, and perhaps the promotion of resilience, are reinforced by the respect and admiration bestowed on ZAKA volunteers. Third, their work is strictly voluntary and it is likely that the most resilient volunteer for such a tough mission. Finally, the possibility that the volunteers are sensation and action seekers that have few other outlets besides ZAKA.[72] In terms of coping mechanisms, the authors found that ZAKA volunteers reported extensive use of religious coping (religion acting as a stress buffer). Looking across different studies, Solomon and Berger explained that "religious coping may exert its beneficial effects through three general pathways: beliefs that may facilitate cognitive restricting of the meaning of the traumatic events, the social support of the close-knit religious community, and a sense of divine control over the stressful experiences."[73] ZAKA volunteers also used the coping technique of denial, "which is defined as an unconscious attempt to reject unacceptable feelings, needs, thoughts, wishes, or external reality factors."[74] Although denial is, at times, an inappropriate mode of coping, Solomon and Berger found that denial helped contain anxiety and served as a useful protective measure by blocking our information that is too affectively stimulating or anxiety provoking.[75]

Although there are cases of resilience in case studies of chronic terrorism, the detrimental effects of repeated attacks on individuals, families, and communities cannot be understated. Daya Somasundaram studied victims of terror in Sri Lanka who were profoundly affected psychologically and socially after two decades of inter-ethnic insurgency and counter-insurgency. Collective trauma is a cumulative effect of terror on a community and Somasundaram explained that "given the wide-spread nature of the traumatization due to war, the individual's psychosocial reactions may have come to be accepted as a normal part of life. But at the community level, manifestations of the terror can be seen in its social processes and structures."[76] However, the author indicates that some cultural coping strategies that led to survival during intense conflict may not be adaptable during subsequent peace and reconstruction phases. For example, a deep suspicion and mistrust of others developed among Tamils.[77] Although there were overwhelming negative consequences to sustained terrorism on the community, in particular a deterioration in values and ethics, Somasundaram described a few positive developments, including emerging grass roots community organizations, the decline of the caste system, and the changing status of women. Furthermore, he says that community level approaches and interventions (e.g. awareness programs, training for grass-roots workers – basic psychosocial skills, rebuilding of community structures, efforts to address social justice and socio-economic rehabilitation) could reverse the worst effects of collective trauma and go a long way in restoring war-torn societies.[78]

As a final example, in a retrospective study of forty-year follow ups of survivors of the Holocaust and other genocidal tragedies, Henry Krystal investigated "what attributes made individuals able to survive and master the potentially lethal trauma, and what characteristics favored successful resumption of 'normal' life?"[79] Krystal acknowledged that the variety of experiences during the Holocaust were enormous and depending on the challenges an individual faced, inherited personal traits, assets, and patterns of behavior influenced the success of his/her/their efforts.[80] He goes on to explain that a "healthy infantile feeling of omnipotence is the most important asset for dealing with life's stresses and potential trauma … It is the emotional mainspring of extraordinary reserves."[81] In fact, Krystal claimed that all resilience is built on adult residuals of infantile omnipotence feelings, which are a conviction of one's security, lovability, and safety.[82] For survivors of the Holocaust, "unconscious and repressed memory traces are not preserved intact but are subject to complex modifications" and "being able to use disavowal and repudiation (primary repression) and to suspend all mourning was essential."[83] "In the concentration camps", Krystal explained, "even though there was significant traumatization, there were individuals who, with luck and health, were able to establish a pattern of living that they accepted as being a greatly abnormal, but temporary, situation."[84] He noted that "As long as they maintained such hope, their degree of

dehumanization was moderated. Hidden vestigial optimism permitted some limited alertness and initiative, even inventiveness."[85] Similar to the denial required for the ZAKA body handlers, some victims of the Holocaust used such psychological mechanisms to frame their reality and operate within it. Neria et al. highlights that researchers have identified several factors associated with effective coping during exposure to trauma and reduced psychopathology in its aftermath, including personality traits such as attachment style and hardiness, cognitive attributional style, next to a range of biological factors.[86]

The examples above emphasize the traumatic effects of terrorism on individuals, communities, and whole societies. These cases offer insights into survival, coping mechanisms, and resilience. Psychologists define resilience "as the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress – such as family and relationship problems, serious health problems, or workplace and financial stressors."[87] Fostering resilience is at the core of the prevention and preparedness suggestions that follow. Resilience involves, to a certain extent, "bouncing back" from difficult experiences, but it can also involve personal growth. Adverse events do not have to determine the outcome of one's life, as there are many aspects of life that one can control, modify, and grow with.[88] That is where resilience comes in because becoming more resilient not only helps individuals, families, communities, and societies get through difficult circumstances, but it can also empower growth and improvement of life along the way.[89]

Snapshot of Prevention and Preparedness Suggestions

In their work on mental health and refugees, Miller and Rasco draw a parallel between the problem of smoking and lung cancer and that from a public health perspective it makes good sense to prioritize the prevention of lung cancer through smoking prevention and cessation programs.[90] They go on to frame the following ecological principles:

> "Whenever possible, prevention should be prioritized over treatment, as preventative interventions are generally more effective, more cost-efficient, and more humane than an exclusive reliance on the treatment of problems once they have developed. This does not negate an important role for treatment; it simply regards individual treatment as one tool in the arsenal of intervention responses."[91]

In Chapter Two of this Handbook, Alex Schmid poses the question: "Should we be concentrating on reducing the *capabilities* of terrorists, or diminish their *motivations* or should we be prioritizing strengthening the resilience and preparedness of their potential victims and targets?" This chapter postulates that building resilience and preparedness play a significant role in diminishing the effects and probability of lasting traumatization in direct and indirect victims of terrorism. In a study conducted by Stevan E. Hobfall et al., the authors assembled a panel of experts on the study and treatment of those exposed to trauma to gain consensus on intervention principles. They "identified five empirically supported principles that should be used to guide and inform intervention and prevention efforts at the early to mid-term stages.

These are promoting: 1) a sense of safety, 2) calming, 3) a sense of self-and community efficacy, 4) connectedness, and 5) hope."[92] They frame the guidelines as particularly important for broader public health and emergency management. The authors make an important call for more broad-scale interventions that ought to be available to large numbers of individuals quickly, which "means that intervention must not only be conducted by medical and mental health professionals, but also by gatekeepers (e.g. mayors, military commanders, school teachers) and lay members of the community."[93] In addition, Hobfall and colleagues emphasize that "Stopping the cycle of resource loss is a key element of intervention and must become the

focus of both prevention and treatment of victims of disaster and mass trauma, and this includes loss of psychosocial, personal, material, and structural (e.g. jobs, institutions, organizations) resources."[94]

The principles laid out by Hobfall et al. are important guides for promoting resilience and focusing on prevention of lasting traumatization by means of interventions that go beyond the bounds of psychotherapy. Resilience is fostered in individuals, the wider-work or social community, and the larger population. Preparedness before a traumatic event intends to cushion the effects of the psychological stress and promote resilience. What follows is a snapshot of prevention and preparedness suggestions highlighted in a sample of the literature on trauma and terrorism that focuses on four specific groups or themes: 1) supporting first responders, 2) promoting resilience in children, 3) media delivery and consumption, and 4) community initiatives. A review of the practical efforts at preventing and managing trauma and loss derived from the literature informs the suggestions around comprehensive and flexible responses and mental health strategies. Such intervention and prevention measures have to work collaboratively with proper access to mental healthcare, early identification of risk factors, integrated medical screening, and education and intervention efforts aimed at public safety and healthcare professionals. If mental health disaster planning and preparedness can be built into permanent infrastructures, effective response capability will endure an emergency.[95]

The suggestions here are drawn from the literature, but Hobfall et al. remind us that it is "critical that we remain modest in our claims about what interventions can accomplish towards prevention of long-term functional and symptomatic impact … it is unknown to what extent such interventions will be associated with significant improvements in functioning."[96] What follows indicates primary prevention efforts (interventions implemented prior to the onset of symptoms and as a protection against harmful events before they produce dysfunction) and secondary prevention efforts (implemented after trauma exposure and aims to curtail dysfunction, disorder, or pathology).[97] While there is an emphasis on primary prevention suggestions, secondary interventions are included as a way to effectively inhibit lasting traumatization. Furthermore, operationalizing the prevention and preparedness suggestions explored below should be designed to fit the specific needs to the culture, place, and type of trauma. They should also be tested, refined, and re-evaluated.

Supporting First Responders

Law enforcement officers, ambulance personnel, firefighters and other emergency-response workers are often the first to respond to terrorist attacks that are distressing and horrific by design of the perpetrators. This can precipitate a traumatic response that may negatively affect their physical and mental health.[98] There is an important body of psychological research on the effects of trauma on front line officers and it suggests that there are major negative consequences of unresolved trauma. These consequences include a higher prevalence of alcoholism, serious illnesses related to stress, isolation, family difficulties, lowered concentration, sleep disturbances, difficulties in concentration, eating excessively, gambling, unsafe sex, and attempted or completed suicide.[99]

Part of the day-to-day duties of first responders is attending to critical incidents. Support for their mental and physical health must already be built into their training. Furthermore, traumatic incidents accumulated through a career are, as a whole intertwined and unified, shaping the complex form of trauma. Therefore direct or indirect exposure to trauma is not the only factor that may lead to a later experience of trauma.[100] In a study of police officers, Chistiane Manzella and Konstantinos Papazoglou discuss "that the law enforcement field is characterized by a unique form of subculture, the so-called 'police culture' which often prioritizes physical strength for the survival of the officers on the street."[101] While this culture enhances solidarity and cohesion, the open expression of fear or emotions in response to

charged events is often held unacceptable and considered weakness in police culture. First responders have the unique positions of dealing with horrific events at one moment then needing to calm, console, and take charge, and while emotional responses are inherent in these responders, ignoring them comes at a high price of reduced quality of life and well-being.[102] One challenge is the idea that trauma happens to others and "not me" and that first responders are supposed to protect and take care of victims, rather than becoming victims themselves, which goes against their sense of identity.[103] In order to support, educate, and help first responders the literature highlights several areas of focus that will now be discussed.

Police Culture

Manzella and Papazoglou found police educators to be in a unique position to address the issue of "police culture" and senior officers who carry out the training are in a unique position to help the next generation of officers to be cognizant of the ways to handle exposure to trauma and loss.[104] They can encourage police officers to see themselves as possible victims and/or survivors of terrorism and can work to create bridges with mental health professionals. This comes in the form of resilience promotion programs (which have been successfully applied to US army military personnel).[105] Such programs should not only be instituted and promoted to assist rookie officers and personnel, but senior first responders serve to benefit as well. Breaking the stigma associated with reaching out for help (which is often paired with unsought negative changes in job duties or reduced pay) is essential to providing support for first responders. [106]

Journaling

Training modules with proven success have helped police officers improve their well-being and stress resilience through relaxation techniques and visual imagery exercises.[107] Practical exercises in training include: psycho-education about trauma, mindfulness/ awareness training called "be where your feet are" and journaling. Police trainee participants in one study reported that they were more comfortable writing than talking; writing in journals also helped participants organize their memories.[108] There is also a desire to link mindfulness/awareness with procedures in the field, based on the ability to "check the reality of where you are and who you are" which often prevents negative effects often experienced in the aftermath of trauma, like disassociation.[109]

Peer-counselling

Organizations (those who hire, train, support, and oversee) first responders should develop necessary interventions to provide responders with appropriate tools and coping mechanisms for their complex and cumulative form of trauma. As one study on police officers noted, "Thereby, police organizations would become a type of protective milieu that apply such programs and train their personnel so that police officers would be more resilient in dealing with the exposure to different threatening situations."[110] Studies have found peer-counselling effective; those providing the support ought to be directed by guidelines from mental health professionals.[111]

Practice-based Treatment

Continued and new conversations among mental health professionals and first responder

organizations. This would help "the development of a practice-based multifaceted treatment that would enable mental health professionals to respond to police officers' and their families' needs more effectively, considering the multitude forms of police trauma and its consequences in the police organizations."[112] As discussed by Konstantinos Papazoglou, clinicians will then be able to view police trauma as a cumulative product, formed by critical incidents and multiple factors rather than a single traumatic event that triggered symptoms.[113] Job-related PTSD can be further complicated by a child abuse history and significant dissociation or mood dysregulation.[114]

Treating PTSD

In terms of treatment to mitigate the lasting effects of trauma, Nina F. Lewis-Schroeder et al. discuss PTSD treatment in first responders in the form of a four-phase approach used in the McLean Hospital LEADER program: Phase 1: Diagnostic assessment; Phase 2: Symptom stabilization and skills training; Phase 3: Trauma-focused processing; Phase 4: Consolidation and aftercare.[115] Peter T. Haugen et al. also describe an integrative approach for the treatment of PTSD in 9/11 first responders that is built around three core techniques: 1) Meaning making: engaging the patient in meaning making regarding the traumatic experience; 2) Following the affect: bringing about a situation where the patient spends sustained periods of time focusing on the source of the distress; 3) Interpreting defenses: interventions that address avoidance strategies.[116] In addition, studies have explored the merits of Cognitive-Behavioral Therapy (CBT) for treatment of PTSD in first responders.[117]

Female First Responders

Research also draws attention to special considerations for female first responders. One study cautions that numerous factors need to be kept in mind for the treatment of female first responders, "including their potentially different attachment styles from male first responders and also the likelihood of their having relational versus individualistic coping styles."[118] Lewis-Schroeder et al. found that "Successful treatment is best achieved through person-centered care and careful attunement to both the stated and inferred individual goals of the patient."[119] It can be assumed that multiple factors are also at play for the treatment of LGBTQ, minorities, and others with diverse experiences and backgrounds.

Family Support

Research indicates that there is a "buffering" effect of social support on risk for PTSD. It underscores the importance of preventative efforts to increase family and work social support during disaster response and recovery. Such support may help mitigate the harmful effect of trauma, as well as other risk factors, and promote resilience.[120] The support of spouses, family, religion and/or faith, a sense of community support for first responders, and a prepared team of mental health professionals ought to work together to buffer the risks.[121]

Pre-incident Training

Those who administer first responder programs should recognize the resilience of first responders while also acknowledging the importance of emotional and psychological support sources for building and maintaining that resilience.[122] Efforts should be made to reinforce and strengthen such sources before a terrorist incident occurs, including family programs in

departments, recognition of the role religion and/or faith plays – perhaps through a volunteer or official chaplain's office, and mental health professionals gaining the trust of first responders before an incident to strengthen support during and after.[123]

Promoting Resilience in Children

Terrorism affects children directly and indirectly around the world. Millions are exposed to traumatic events and the broad, severe, and long-term impacts on our society are yet to be fully understood.[124] While it has been stated that the majority of children are resilient and able to cope, many children need some kind of structured intervention.[125] In particular, preschool children (ages 0-6) are passing through critical developmental stages, which makes them more vulnerable to trauma than older children. Research indicates that their exposure to terrorist incidents and disasters may drastically influence their health and further development.[126] Studies after terrorist attacks (including Oklahoma City, New York, Israel, and elsewhere) have shown that 10-16 percent of adults and children suffered from chronic PTSD that caused significant difficulties in their functioning. However, only a very small number of people, especially children, received psychological treatment in the sub-acute and chronic stages.[127]

While older children were more likely to meet the criteria for conduct disorder or depression, younger children were more likely to have PTSD, agoraphobia, and separation anxiety. Children who were personally exposed to the event or had family exposure were at a greater risk for PTSD.[128] Furthermore, Annette M. La Greca and Wendy K. Silverman emphasize in their work that "children and adolescents exposed to disasters and acts of terrorism are likely to need *more than* interventions that focus exclusively on PTSD reactions because their reactions are often complex and multifaceted and may include other problems (such as grief, depression, and anxiety)."[129] To promote resilience in children, Leo Wolmer, Daniel Hamiel, and Nathaniel Laor suggest that "stress inoculation as a way of primary prevention might be a cost-effective strategy."[130] There is a general consensus that protective factors and those that promote resilience include self-esteem, coping strategies, social support, hope and meaning, optimism, and humor.[131] Several studies identify teachers and the education system as an important resource for building resilience in children, due to their daily contact and ability to provide direct and ongoing support. Parents and caregivers are of course a vital component of promoting resiliency, as they buffer and translate terrorist acts to children.

In order to promote resilience and support children (and their families) exposed to trauma, the literature highlights several areas of focus.

Parent-Child Relationship

Enhance the readiness of children and their families by increasing their resilience prior to a terrorist attack. This is promoted by an early history of secure attachment fostered by consistent and supportive care, which can have a powerful and enduring influence on children's adaptation and has been shown to increase the likelihood they will utilize formal and informal support at later stages.[132] Especially in the formative years, a child's development is intimately connected to parent functioning and parent reactions are important to understanding children's adaptation.[133] Understanding the impact of terrorism and children's responses to exposure must include viewing children in the context of their families. As Pfefferbaum et al. explains, "Children are greatly affected by parental support and intervention and by the larger 'recovery environment' in the aftermath of trauma, including terrorist assault. Over time, parents' ability to manage their own responses and to support their children's processing of events will influence the child's adjustment."[134] Pfefferbaum and her colleagues acknowledge that terrorism creates independent health and psychological effects on parents and they call for

more work on the impact of terrorism and the parent-child relationship/parenting to identify risks and implications of preparedness.[135]

School-Training in Preparedness

Mental health interventions that can be delivered in community settings to children and adolescents can help provide effective preparedness for children to cope with traumatic events. Schools can play a central role as the de facto provider of mental health services. The study by Wolmer, Hamiel, and Laor focused on teacher-based initiatives for building resilience among Israeli children exposed to ongoing attacks. This research "demonstrated that a teacher-mediated, protocol-based intervention focused on resilience enhancement is an effective method to grant students coping skills to help them face daily stressors and transfer the knowledge to cope with severe life events, process them, and recover swiftly to regain normal routine."[136] The intervention in this study was implemented three months before the traumatic exposure and found "significant difference in symptoms of post-trauma and stress/mood among participants and control children."[137] Furthermore, "the effects of the teacher-delivered intervention go beyond reduction in trauma symptoms and include the enhancement of coping and adaptation in general."[138] Another study by Daniel Hamiel et al. said that "Kindergarten-based universal preventive interventions seem promising, non-stigmatic, and cost-effective."[139]

Providing Psychoeducation

Interventions among masses of students can be facilitated through a shift in the role of education. Teacher-led interventions in the study by Wolmer, Hamiel, and Laor aimed at enhancing children's resilience by:

> "(1) providing psychoeducation to understand and normalize stress reactions; (2) addressing (identifying and replacing) dysfunctional thoughts and beliefs that mediate development of psychological symptoms, for example that the world is completely dangerous; (3) learning to manage anxiety and regulate emotions, understanding and better controlling the interrelationship between thoughts, feelings and behaviour; (4) teaching problem-focused coping and imaginal exposure (to develop perspective taking, self-talk, and positive imagery); (5) encouraging students to increase activities that foster positive emotions; (6) facilitating social support and sustained attachments (to build on and enhance existing support and lasting relationships, e.g. effective listening); and (7) instilling hope to counteract the shattered worldview and the vision of a shortened future characteristic of mass trauma."[140]

The focus is on building resiliency and strengthening resources (rather than direct processing of traumatic experiences). This approach avoids difficulties in program adherence and the need for individual attention, particularly in regions where exposure to terrorism is direct, intense, and wide-ranging.[141]

Training Trainers

Training for education professionals, such as the National School Intervention Project (developed in Israel in October 2000 in response to high levels of stress experienced by civilian population), specifically the "Building Resilience: A Program for Teachers and Students" facet

of the program. A parent component offered at schools was an integral part of the project. Naomi L. Baum provides an in-depth look at such a program and explains that classroom activities were centered on the themes of a) Relaxation; b) Exploring Fears in particular, and Feelings, in general; c) Building of Resources; and d) Finding Hope and Meaning in Difficult Situations.[142] Baum concludes that "Empowering teachers through workshops that provide information, skills, confidence-building activities, and support turns teachers into natural partners of mental health professionals working in schools, and creates an environment that can support resiliency and wellness among the student body."[143]

School-based Activities

Restoration of the school community as an essential step in re-establishing a sense of self-efficacy through support, school-initiated social activity, and learning opportunities, including an opportunity for children to see grief appropriately modelled, as well as participate in the planning and implementation of activities.[144] This can also include programs that reduce disparities in schools by providing support for parents and enriching early learning opportunities for economically disadvantaged children. This approach has produced positive effects on cognitive skills.[145]

Recognizing Post Traumatic Stress Disorders (PTSD)

Parents and school communities working with mental health professionals to intervene as soon as symptoms appear. Physicians, psychologists and other clinicians may be able to help people identify normal stress reactions and encourage steps to cope effectively. This also involves educating parents on what signs to look for in their children and how to respond to their needs.[146] A dialogue between mental health professionals with an expertise in PTSD and primary care physicians should be open to integrate screening for PTSD into general medical practice. This could come in the form of self-administered screening tools, educational brochures, and effective communication to increase detection, enhance appropriate referrals to specialists and improve clinical management of patients with psychiatric symptoms.[147] Primary care providers are in the unique position that they may be the first to recognize symptoms and recognize when those with a PTSD diagnosis are entering a related psychosocial crisis.[148]

Media Delivery and Consumption Practices

The spread of fear to trigger emotional and behavioral reactions are hallmarks of terrorism, as are "lasting psychological distress and counteractions driven by emotions rather than by substantiated consideration."[149] How leaders, the media, communities, and societies react to terrorism, and its underlying threats, plays a role in how terrorism is perceived and how fear is instrumentalized. Such fears are dramatically spread through mass and social media. Michelle Slone and Anat Shoshani highlight that "The primary goal of terrorism is the creation of fear and intimidation. To this end, the media is frequently exploited as a conduit to produce indirect victimization."[150] In the case of the 9/11 attacks, news coverage was visceral. People watched terror unfold on live television and were exposed to replays of the carnage over and over again. The media play an important role in the way terrorist acts are broadcasted, explained, and digested by audiences. Media coverage can trigger and exacerbate symptoms of those suffering psychological stress from trauma exposure. Sensationalized media reporting and social media posts can inhibit efforts at resiliency and serve secondary purposes of financial gain and brand exposure for those broadcasting it. Not only does it serve a key purpose of the terrorists, but today's mass media and social media also play a role in sabotaging prevention and

preparedness efforts aimed at building resiliency. In order to better manage the spread of fear, foster resilience, and discourage the use of the media for terrorists to exert mass psychological impact, the literature highlights several areas of intervention.

Media Guidelines

Guidelines and agreements should be considered between the media and the government and among the media themselves. Gabriel Weimann poses some of the basic questions about covering terrorist events, including these: how should such terrible events be reported? And who decides where to draw the line between informing and intimidating the public? How much live coverage should there be? According to Weimann, "The lessons of direct feed, straight from the terrorist scene, have sparked a debate about the impact of such violent and disturbing images, identification of victims on television before informing the relatives, inaccurate reports on the number of victims, and the spread of panic."[151] This is even more problematic in the age of smartphones and social media. Agreeing to predetermined ethical media principles and adhering to self-imposed guidelines, based on empirical findings, will help establish optimal ways of maximizing security and minimizing the damage from the free flow of (dis-) information in times of terror.[152]

Removing Hate Speech

The onus continues to be on social media platforms and their users to report and remove illegal hate speech and work to fight the spread of fake news and misinformation.

Protecting Children

Media exposure to terrorism has been found to constitute a significant stressor and studies have found a substantial correlation between media exposure and PTSD in children in particular. Parents are advised to limit their children's television and social media consumption during a crisis and discuss the event with them.[153] Slone and Soshani also provide the guideline that "Particularly important would be extension of these strategies to children by constructing school curricular programs that address coping with media exposing incidents of trauma and terror."[154]

Crisis Lines

The media has some responsibility to alert viewers to the severity of imminent exposure, this can include a warning sign to identify sensitive and disturbing material, as well as suggesting coping strategies and publicize avenues for help and support, like crisis lines or websites.[155]

Responsibility of Journalists

Journalists play the conflicting roles of citizen and journalist while navigating the clash between care for victims and duty to report.[156] In the coverage of terrorism, personal responsibility must be allocated to the discretion of reporters, photographers, camera operators, and editors in the field who are regulating material with a sensitivity to viewer effects.[157]

Freedom from Fear vs. Freedom of Expression

Considerations are needed to balance the psychological impacts of media reporting on terrorist events and the danger of restrictions imposed on the freedom of the press and freedom of expression.[158] Fear generated by terrorism can be (and has been) manipulated by politicians to pass questionable legislation that undermines civil rights and liberties that under different circumstances would not have received public acceptance.[159]

Responsible Media Coverage

Gina Ross suggests that by "Adding healing aspects to coverage, such as how people cope and care, the media can help reassure and promote hope and meaning."[160] Media activities can work to protect the public from second-hand trauma and inform and encourage the public by shifting "from the trauma vortex into the healing vortex."[161] Ross provides several activities designed to aid in this shift, including:

1. Frontline media professionals monitor their own levels of stress and learn to safely discharge traumatic energies.
2. Asking questions like: Have we balanced the coverage of the trauma vortex with coverage of the healing vortex?
3. Warning viewers of upcoming disturbing sounds and images.
4. Recognizing the impact of language on a public in shock.
5. Encouraging viewers to watch news in small doses.
6. Avoiding excessive gory details.
7. Avoiding repetitive showing of traumatic images, which can be triggers for painful recollections.
8. A heavy focus on negative news reinforces fears and desires for revenge.
9. Normalizing initial traumatic response and cautioning about the characteristics of unresolved trauma (trauma impairs the ability to think clearly).
10. Providing information on cutting-edge coping and healing methods and working with trauma experts.
11. Informing the public of help available during and after trauma exposure.
12. Running information on emotional first aid.
13. Inserting images of inspiring acts of kindness, compassion, courage, and perseverance.
14. Continued reporting of individual group recovery to help communities overcome feelings of helplessness and regain hope.[162]

Community Resilience and Community-Based Initiatives

The term resilience is often used in the context of disaster and refers, inter alia, to an individual's capacity to rebound following experiences of adversity.[163] According to Jack Saul, "Researchers and practitioners have increasingly come to see that resilience of an individual does not exist in a vacuum – it is a function of one's social and cultural content."[164] This is commonly referred to as "community resilience", which Saul defines as "… the collective capacities in families, communities, organizations, and society at large that are more than the sum of individual capacities."[165] Jack Saul and Judith L. Landau further elucidate that community resilience is "A community's capacity, hope and faith to withstand major trauma and loss, overcome adversity, and to prevail, usually with increased resources, competence, and connectedness."[166] Building such resilience can be difficult, especially if it is not done beforehand, but it is fundamentally important in trauma preparedness and in the prevention of

long-term psychological and social difficulties. As Danielle Knafo notes, "Human-made violence is something that we need not only to overcome and survive but also to make sense of. By maintaining hope and creating meaning, we can determine the outcome of our survival and, more importantly, our will to live and the quality of our lives."[167] Learning within a new situation, creating new frameworks for intervention, and implementing programs that are outside of the traditional social services environment can support a transformation from a challenge to an opportunity for growth.[168] According to Jonas Waizer et al. "most crisis counselling experts agree that it is as important to strengthen community support networks as it is to respond to individual need."[169] Resilience, especially aided by community-based initiatives and family/social circles, is a common theme for both treatment of, and preparedness for the psychological effects of terrorism. As Waizer and his co-authors succinctly note, "Even when the impact is broad, disasters are local events."[170] In order to better equip communities to foster resilience while rapidly adapting in the wake of terrorist events, the literature highlights the following areas of focus.

Lessons Learned

Lessons learned after the 9/11 attacks by the Federation Employment and Guidance Service (F.E.G.S.) – one of New York's largest community-based not-for-profit agencies – are discussed in an article by Jonas Waizer and colleagues. From this experience, they explain that "F.E.G.S. believes that community agencies must be better prepared to provide quality services at lower cost, and to assess rapidly an emerging situation, possess the confidence to overcome bureaucratic barriers, demonstrate a willingness to experiment with new approaches and discard what is not working."[171] Community supports should prepare for agile responses and organizations (like F.E.G.S.) can build an infrastructure based on partnerships with other non-profits as well as private and for-profit affiliates.[172] Shared infrastructure is essential to non-profit agencies and an important factor in the response to terrorism and the development of services.[173]

Offering Help after Terrorist Events

In the example of F.E.G.S. in New York, Waizer et al. found lessons in blending a public health model, a capacity to respond quickly in a time of crisis, adapt rapidly to new contracts for staffing and technology, and approaches to staff training that are a more flexible mix of mental health practice and public health outreach.[174] There are shame and economic limitations that restrict some individuals from seeking help after terrorist events. The authors found that "By working within communities to build future resilience and assisting in rebuilding and strengthening their own networks, we were able to reach and help with both behavioral and employment services many people who would otherwise have gone unattended."[175]

Response Readiness

Community preparedness and response system coordination includes extensive collaboration "across culturally and organizationally disparate systems such as law enforcement, emergency management, public health, clinical laboratory, mass media, education agencies, and medical response systems from all levels of public enterprise."[176] Dori B. Reissman and colleagues indicate that "Since emergency response is coordinated at a local jurisdictional level, community preparedness is a key ingredient for homeland security. Response readiness needs to consider both individual and collective behavior and function within the social and cultural contexts of impacted communities."[177]

Sharing Experiences

Determining the needs of different groups, including local residents, business leaders, school officials, and foreign-born communities and addressing them in preparedness and healing capacities. For example, this means addressing the needs of those who have survived traumatic experiences like escaping war-torn countries may be deeply re-traumatized or minorities may be targeted by racial bias, as stigma raises concerns at the community level.[178] Community support groups bring together neighbors to talk and share experiences, such as a "Time to Share" community support group for lower Manhattan that was established after 9/11 and residents continued meeting for nearly two years.[179]

Strengthening Social Cohesion

The unpredictable violence of terrorism evokes fear, paranoia and chaos. Reissman et al. postulate that "Activities that promote a sense of community well-being and social cohesion would thus be effective countermeasures to this disruption."[180] Public health strategies should account for the effects of terrorism on social connectedness and "adopt broad interventions that recognize the interdependence of community health and social connections."[181] The authors suggest that "Community-based settings, particularly those experienced in the health care of special populations, may be better positioned to link victims with family and community networks and resources, especially to reach populations that would not otherwise seek and accept support."[182]

Family and Community Interventions

Judith L. Landau places an emphasis on the role of the family as a core component in dealing with the effects of trauma. She explains that "facilitating family, cultural, and community ties and enhancing access to family and community resources can be protective against the impacts of trauma. Such connectedness fosters resilience and reduces the short- and long-term effects of stress in families and communities."[183] She explores the Linking Human Systems Models as an overall approach to guiding family and community interventions to promote healing and reconnection by accessing inherent strengths within families and communities. The core philosophy of the models "is that building a sense of continuity from past to future helps people navigate the present with greater awareness of their choices."[184] A long-term vision Landau proposes, with the collaboration of international scholars who are involved in communities affected by war, disaster, and mass trauma, to develop "a multi-phased and multi-component tiered system of interventions that integrates: (a) an individual evidence-based intervention; (b) a parenting intervention; (c) a family-level intervention; and (d) a community-level intervention."[185]

Collective Recovery

Recovery from collective trauma involves collective processes of readjustment, adaptation, and recognizing and strengthening adaptive capacities for resilience in both families and in communities.[186] Jack Saul aptly states:

> "These capacities for recovery may be enhanced through the structure and support provided by outside practitioners, may be initiated from within communities themselves, or may be driven by various insider/outsider collaborations. Adaptation following massive traumatic events requires

> flexibility responding to changing circumstances over time and at the same time developing a positive vision of recovery. Thus, collective recovery is a creative and emergent process; its content and form are constructed over time and through cycles of collective action, reflection, and narration."[187]

Capacities for resilience are also strengthened by incorporating local values and beliefs regarding psychological wellbeing into the design, implementation, and evaluation of interventions at the community level.[188] This serves to increase the likelihood that interventions will be culturally appropriate and therefore increase the odds of program utilization and effectiveness.[189]

Conclusion

Terrorism involves random victimization and comes unexpected, and the arbitrary nature of this blind violence affects the psychological and mental health of direct and indirect victims. The emotional reaction and high impact of terrorism, especially national traumas, are not limited to the communities directly affected. The social, political, emotional, and economic effects are widespread and long-lasting, which determines how individuals, families and whole communities cope. Studies that look at the psychological impact of exposure to the 9/11 attacks have shown that substantial effects of the attacks rippled through the American society. These affected many individuals who were not directly exposed to the attacks; they too experienced psychological stress symptoms. Indirect exposure to terrorism can result in substantial psychological effects, but physical proximity and direct exposure to the terrorist crime scene result in an increased likelihood of experiencing major trauma symptoms. In the case of the 9/11 attacks, the most consistently documented PTSD cases related to the attacks were correlated to degree of exposure to the event. Therefore, lasting traumatization of direct and indirect victims is focused largely on highly exposed individuals – those who were directly exposed through personal presence, witnessed trauma to others, were indirectly exposed through the traumatic experience of someone close to them, or were exposed to details of traumatic events repeatedly through the nature of their work. Case studies of those who experienced repeated or even chronic terror, such as those who witnessed the suicide bombings during the Al Aqsa Intifada in Israel, ZAKA body handlers, inter-ethnic war in Sri Lanka, and Holocaust victims emphasize the traumatic effect of terror on individuals, communities, and nations. The psychological impact of chronic trauma is difficult to understand for most outsiders, but offer those who study it insights into survival, coping, and resiliency that can help future victims when translated into training programs.

Core purposes of terrorism – to create and instrumentalize fear, panic and chaos in society – are undermined if a community is able to cope with the psychological trauma induced by acts of terrorism in a way that mitigates emotional damage and encourages proportionate, thoughtful reactions.[190] This chapter discussed several ways how societies can support those at risk of lasting traumatization by identifying prevention and preparedness practices and suggesting secondary interventions with favorable results based on various historical and contemporary settings. These suggestions are drawn from practical efforts and findings explored in the literature on support for first responders, promotion of resilience in children, media delivery and consumption, and community resilience and community-based initiatives. A focus on timely prevention and solid preparedness measures can build resilience and enable individuals and communities to withstand adversity and prevail while mitigating the risks of lasting traumatization for those most impacted by campaigns of terrorism or single acts of terrorism.

The studies examined in this chapter offer important pieces of the puzzle; they allow us a better understanding of terror and trauma. The research cited has laid a solid groundwork for

further analysis in the field. Future developments will hopefully continue to explore resiliency with an emphasis on building social cohesion not just in the wake of an attack, but as a preparedness measure. An emphasis on building mental health planning and preparedness into permanent infrastructures to promote effective response capability can offer a hopeful avenue into a future where terrorism terrorizes less.

Dr. Shannon Nash is the Postdoctoral Network Manager of the North American and Arctic Defence and Security Network (NAADSN). This collaborative network provides timely, relevant, and reliable expert advice on North American and Arctic defence and security topics. Shannon Nash is a Research Fellow at Trent University with NAADSN and has ongoing projects at the University of Waterloo, examining education and training in national security and counter-terrorism in Canada and exploring how the "terrorism" label is informed and applied to violent attacks in Canada. She received her Ph.D. in History from the University of Toronto with a focus on 20th century American history, terrorism, and international relations. She studies past and present terrorist threats and attacks as well as Canadian, American, and international defence, security and counterterrorism policies. Shannon's doctoral thesis focused on the reality of al Qaeda espionage methodology and how the idea of a sleeper agent was perceived and adapted to fit the terrorist threat posed by al Qaeda from the 1990s onwards.

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