Oklahoma City Federal Building Bombing

Memories and Milestones

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“The day of the bombing is a standard by which all Oklahomans now measure time... “We are simply not the same people we were before.”

Stephen Jones,
Timothy McVeigh’s lead defense attorney
A.P. Murrah Bombing

Wednesday 19 April 1995 at 9:02 Central Time

- 46% fatality rate inside the Murrah Building (92% combined)
- 167 deaths in blast
- Nine children under the age of 6 killed
- One first responder killed
- 683 people injured
- 800+ people sought medical care


A.P. Murrah Bombing

- 324 buildings within a sixteen-block radius destroyed or damaged
- 258 additional nearby buildings had shattered glass
- 86 cars destroyed or burned
- $652 million damage


Survivors of 1995 OKC Bombing Reported onset of “PTS” Symptoms


PTSD Symptoms (Criterion B)
Oklahoma City Bombing (N= 182)

Reminders
Flashbacks
Nightmares
Intrusive Memories

PTSD Symptoms (Criterion C)
Oklahoma City Bombing (N= 182)

- Sense of a short'ed Future
- Restricted Affect
- Detachment
- Loss of Interest
- Psyc Amnesia
- Avoid Reminders
- Avoid Thot's & Feel'g


PTSD Symptoms (Criterion D)
Oklahoma City Bombing (N= 182)

- Physiologic Reactivity
- Easily Startled
- Hypervigilance
- Diff Concentrat'g
- Irritability/Anger
- Insomnia

**PTSD Symptom Follow-up Data**

- 137 survivors assessed at approximately 6 and 17 months post disaster
- Combined index and follow-up data yielded a higher (41%) incidence of PTSD than detected at index (32%) or follow-up (31%)
- All PTSD was chronic (89% unremitted at 17 months) with no delayed-onset cases
- Criterion C, unlike B and D alone, was pivotal to current PTSD status
- The findings at index were sustainable


PTSD Symptoms (Criterion F)
Oklahoma City Bombing (N= 182)

Post-Disaster Psychiatric Diagnoses
Oklahoma City Bombing (N= 182)

Prevalence of Pre- & Post- Disaster Disorders
Oklahoma City Bombing (N= 182)

Survivors of 1995 OKC Bombing
Reported coping measures

Survivors of 1995 OKC Bombing
Alcohol Use Revisited

- Acknowledged alcohol users from sample of OKC bombing survivors seeking counseling ($N=43$)
- Reported increased alcohol use related to
  - Injury
  - Retrospective report of initial reaction
  - Grief
  - PTS symptoms
- Increased alcohol use related to functional impairment


"Time heals nothing, "It makes it a little more bearable, but it heals nothing"

Debi, whose brother, a U.S. Department of Housing and Urban Development worker, was killed in the OKC Bombing
Physiologic Reactivity Seven Years After Exposure to Terrorist Event

- Sixty survivors
- Sixty age- and gender-matched “controls”
- Compared on both psychometric and physiologic assessments
  - Heart rate and systolic, diastolic, and mean arterial blood pressures were measured before, during, and after bombing-related interviews
- Posttraumatic stress was significantly more prevalent in the survivor group
- Survivors had significantly greater autonomic reactivity to trauma reminders on all measures than comparison subjects.
- The results suggest that physiologic assessment may capture long-term effects of terrorism that are not identified by psychometric instruments.


Survivors of 1995 OKC Bombing Current Status

- 63% of survivors had utilized psychological counseling services
- 94% were employed at the time of the bombing
- 80% of respondents were employed at time of survey
- 14% of survivors had experienced changes in employment status since the bombing; of these,
  - 55% were unemployed
  - 24% received medical disability/workers’ compensation
  - 21% had taken early or regularly scheduled retirement

Morgue and Forensic Recovery Workers
OKC Bombing (N= 51/135)

- Oklahoma State Medical Examiners Office
- Local funeral service employees
- NDMS DMORT
- 54th Quartermaster Graves Registration Unit
- OU Pathology and Dentistry Departments
  – Faculty
  – Residents
  – Students


Morgue and Forensic Recovery Workers
OKC Bombing
Demographics

- 25 to 56 years old (Average: 34.7 years)
- 35 Male
- 16 Female
- 88% Caucasian
- 73% Married
- 28 % Knew person(s) killed in bombing

Morgue and Forensic Recovery Workers (N=51)

- 10% workers reported increased alcohol use first 2 months after bombing
- 14% workers reported seeking mental health treatment
- Exaggerated startle response persisted one year later

Morgue and Forensic Recovery Workers

Factors Associated with Higher PTS and Depressive Symptoms

- Occurrence of new physical problems
- Increased alcohol use
- Seeking mental health treatment
- Not correlated with demographics, exposure or experience

Perceived effects and recovery in OKC Firefighters

- Survey of 310 (39%) OKC firefighters
- Surveyed in 1996 & 1998
- Compared to out-of-state firefighters (N=106)
- Age range from 21 to 60 years
- Non-Hispanic White = 84%
- Years firefighting from 0 - 30 years

OKC Firefighters: Perceived effect of bombing


OKC Firefighters: Helpfulness of Mitchell-Model CISM

OKC Firefighters: Perceived recovery @ one year


OKC Firefighters: Post-bombing diagnoses 3 years after 1995 OKC Bombing (*N* = 181)

Diagnoses

OKC Firefighters: Post-bombing Alcohol Use
\((N = 181)\)

![Bar chart showing post-bomb alcohol use comparison between OCFD Post Bomb, Wagner et al. (1998), Boxer & Wild (1993), and OCFD Lifetime.]


OKC Firefighters
Perceived Levels of Emotional Support

![Bar chart showing perceived levels of emotional support for spouse, co-workers, faith, very high, high, mod, low, very low, none, and N/A.]

OKC Firefighters
Perceived Levels of Emotional Support

- Both groups of firefighters reported their relations with co-workers had more often improved rather than worsened after the bombing
- Oklahoma City firefighters described much greater support from their community than the out-of-state firefighters reported
- Oklahoma City firefighters reported greater support from both religious communities and mental health counselors than their out-of-state counterparts


Did divorces increase after the Oklahoma City bombing?

In the first year after the bombing, relations with significant others worsened more often for Oklahoma City firefighters than for the comparison group

One-half Oklahoma City firefighters reported lasting changes in their relationship; equally divided between positive and negative changes

Among Oklahoma City firefighters, 10 divorces occurred during the three years prior to the bombing, while 24 divorces occurred between 1995 and 1997

The upward trend in the divorce rate among OCFD personnel began well before the year of the bombing

Did divorces decrease after the Oklahoma City bombing?

Lower observed divorce rates following the Oklahoma City bombing than the prevailing 10-year cubic divorce trend would have predicted.

Comparison of counties in and around Oklahoma City to those farther away showed divorces were lower closer to Oklahoma City.

The noted effect dampen over time.


PTSD in OKC Bombing
Firefighters’ Partners

- Twenty-four female partners of firefighters involved in OKC bombing recovery efforts (13%)
- 22 to 57 years (Mean = 39; 70% aged 30 to 50 years)
- Caucasian (N = 23, 96%)
- Married to, or cohabited with, their firefighter partners for an average of 10 years
- Two were neither married to, nor cohabited with, current mates at the time of bombing but were married to firefighters at the time of the study.

PTSD in OKC Bombing Firefighters’ Partners

• Assessed 43 to 44 months later
• 40% met both B (intrusive re-experiencing) and D (hyperarousal) criteria
• More than one half of the sample exhibited autonomic reactivity on at least one measurement
• One participant met all DSM-III-R symptom group criteria for bombing-related posttraumatic stress disorder
• Most of the participants with post-bombing disorders suffered from pre-existing conditions

Suicide Rate Among Police Officers

• Statistical rate of suicide by police officers is not greater than that of the general population when controlled for sex, age and race
• Law enforcement personnel are 26% less likely to commit suicide
• One “OKC bombing-related” police officer suicide (1997)
"When someone is a victim, he or she should be at the center of the criminal justice process, not on the outside looking in."

President William Jefferson Clinton
Oklahoma City 1997

OKC Bombing American Red Cross
Case Status since April 1995
OKC Bombing American Red Cross
Case Status since 2000

OKC Bombing American Red Cross
Caseload Carryover since 1995

New cases + reopened cases – closed cases
Observations from OKC Bombing

- Occurrence of new physical symptoms can be associated with depression/PTSD in responders
- A terrorist event may reduce divorce, but not for everyone and not for long
- Physiological arousal persists and can also be measured in responders’ spouses
- Mental health care is sought well into the second decade
- All new cases for last three years were first responders

“We remember the day of the bombing not because we can’t forget but because we choose to remember.”

Mick Cornett, Mayor
Oklahoma City 2010