# THE MENTAL HEALTH IMPACT OF SUDDEN VIOLENCE AND NATURAL DISASTERS ACROSS THE LIFESPAN: A CALL TO GIMBLE

October 4<sup>th</sup> 2013

4<sup>th</sup> Biennial Trauma Conference

Doubletree by Hilton Pikesville, Baltimore, Maryland

Dr. Russell T. Jones Department of Psychology Virginia Tech

Phone: 540-231-5934

Fax: 540-231-3652

Email: rtjones@vt.edu

www.firetraumas.com

# Goals of This Morning's Talk

- Types of Disasters
- History of PTSD
- Role of the Media
- Neurobiological Consequences
- Psychological Consequences
- Assessment
- Treatment Implications



# GIMBLE

# Maximum Thrust

Maximum Direction

Maximum Efficiency

# Free Items On firetraumas.com

- Current Vitae
- Brochures:
  - Coping after fire
  - Police stress management
  - Helping children throughout the recovery process
  - ABC's of fire
- Podcasts
  - Cultural awareness
  - Helping children and youth cope in the aftermath of disaster
- Dr. Oz: Making sense of Newtown

- C-SPAN videos:
  - School Safety, Day 1 and 2
  - Populations at risk for Terrorism
- Fire related resources
  - Residential Fires by Jones and Ollendick
  - Beyond the Scars talk
- CRTES-R
- Jones Journal

### Resource for Relocation

#### The ABC's of Fire

An Encyclopedia and Practical Family Guide to FIRE SAFETY, PREVENTION and RECOVERY

Safeguarding and Providing Mental Health Resources for Adults, Adolescents and Children Impacted by Fires

with

Virginia Tech's

REAACT

Recovery

Efforts

Afte

Adult

& Child

Tra

### **CRTES**

Revision of distress levels for the Child's Reactions to Traumatic Events Scale (CRTES-R)

JONES, R.T., FLETCHER, K., & RIBBE, D.R. (2002)

#### Child's Reaction to Traumatic Events Scales - Revised (CRTES-R)

Recently you expe	rienced				
check each item, in	omments made by people after ndicating how often these con ys. If they did not occur durin	nments were	true for you	DURING	
		Not at all	Rarely	Sometimes	Often
1. I thought about	it when I didn't mean to.				
2. I stopped lettin	g myself get upset when I t or was reminded of it.				
3. I tried not to rea				= = =	
<ol><li>I had trouble fa</li></ol>	illing asleep or staying e pictures or thoughts about				
5. I had strong fee	elings about it.				
6. I had dreams a	bout it.				
<ol><li>I stayed away f me of it.</li></ol>	from things that reminded				
8. I felt that it did	not happen or that is was				

Date:

# Undergraduate Team



#### Graduate Team

Scott Anderson Kaushal Amatya Andrew Smith Kate Donlon Kelly Dugan-Burns Christopher Immel Katherine Schwartz-Goel Connor Sullivan

# Special Thanks

- Deanna Bailey
- Ashley Muskett

# Types of Disasters

# Technological Disasters



**Residential Fires** 

Texas Fertilizer Plant Explosion



#### Associated Research

- Jones, R. T., & Ribbe, D. P. (1991). Child, adolescent, and adult victims of residential fire: Psychosocial consequences. Behavior Modification, 15, 560-580.
- Jones, R. T., Ribbe, D. P., Cunningham, P. B., Weddle, J. D., Langley, A. K. (2002). Psychological impact of fire disaster on children and their parents. Behavior Modification. 163-186.
- Jones, R.T. & Ollendick, T. H. (1999). The examination of the impact of residential fire on children: Preliminary findings. Fire International.
- Jones, R.T. & Ollendick, T. H. (1999) Study investigates children's posttraumatic stress after experiencing a residential fire. Stress Points.
- Jones, R.T., Rogers, K., & Ollendick, T. H. The examination of the impact of residential fire on children: Preliminary findings. Fire Engineering.
- Jones, R.T., & Ollendick, T.H. (2005). Risk Factors for Psychological Adjustment Following Residential Fire: The Role of Avoidant Coping. In Cardena, E. & Croyle, K. Acute Reactions to Trauma and Psychotherapy: A Multidisciplinary and International Perspective, pages 85-99.

# Natural Disasters



#### Associated Research

- Jones, R.T., Ribbe, D.R., Cunningham, P.B., & Weddle, D. (2003). Psychosocial Correlates of Wildfire Disaster: Post Disaster Adult Reactions. Fire Technology, 39, 103-117.
- Langley, A., & Jones, R.T. (2005). Post-traumatic Symptomatology in Adolescents Following Wildfire: The Role of Coping Strategy & Efficacy. Fire Technology. 12, 587-599.
- Jones, R. T., Ribbe, D. P., Cunningham, P. B., Constantino, T., & Beneser, J. (1991). Impact of disaster (wildfire) on children's psychological functioning. Presented at the 99th Annual American Psychological Association Convention, San Francisco, CA.
- Jones, R. T., Ribbe, D., Cunningham, P. B., & Witt, D. (1995). Wildfires: The Effects of Resource Loss. Presented at the 103rd Annual American Psychological Association Convention, New York, NY.

# Wildfires, CA 1996



# Hurricane Andrew, 1992



### Mass Violence



Virginia Tech Shootings



Boston Marathon Bombing

Oklahoma City Bombing





Navy Yard Shooting



#### Associated Research

- Jones, R.T. (2007). Steps Toward Assessment and Intervention of Survivors' Mental Health Following The Virginia Tech Shootings. Presented at Jackson State University, Jackson, MI.
- Jones, R.T. (2007). The Aftermath of Virginia Tech: School Violence, A Social and Public Health Concern. Presented at the ISTSS Conference, Baltimore, MD.
- Jones, R.T. (2007). Steps Toward Assessment and Intervention of Survivors' Mental Health Following The Virginia Tech Shootings. Presented at the ISTSS Conference, Baltimore, MD.

# Combined Technological/Natural



#### Associated Research

- Jones, R. T., Frary, R., Cunningham, P., Weddle, J. D., & Kaiser, L. (2001). The psychological effects of Hurricane Andrew on ethnic minority and Caucasian children and adolescents: A case study. Cultural Diversity and Ethnic Minority Psychology, 7, 103-108.
- R.C., Galea, S., Jones, R.T., & Parker, H.A. (2006). Mental illness and suicidality after hurricane Katrina. World Health Organization Bulletin. 84(10), 1-21
- Jones, R. T., Frary, R., Cunningham, P., Weddle, J. D., & Kaiser, L. (2001). The psychological effects of Hurricane Andrew on ethnic minority and Caucasian children and adolescents: A case study. Cultural Diversity and Ethnic Minority Psychology, 7, 103-108.
- R.C., Galea, S., Jones, R.T., & Parker, H.A. (2006). Mental illness and suicidality after hurricane Katrina. World Health Organization Bulletin. 84(10), 1-21.

### Painted Cave Fires, Santa Barbara CA 1990



# Hurricane Katrina, 2005



# Traditional Disaster Typology by Agent/ Cause

- Agents of destruction
  - Natural
    - Floods, earthquakes
  - Human-caused (2 subcategories)
    - Technological accidents
      - Caused by neglect, carelessness, failures in technology such as dam collapses or mass transportation accidents
    - Mass violence
      - Disasters caused by intent of maleviolence such as shooting sprees or peacetime terrorist attacks

# Traditional Disaster Typology by Agent/ Cause (con't)

- Technological vs. Natural
- Natural disasters- A meta-analysis (Rubonis & Bickman, 1991)
- No difference- (Norris et al., 2002)
- Mass violence- more likely to have greater mental health consequences-(Norris et al., 2002)

### Major Consequence is PTSD

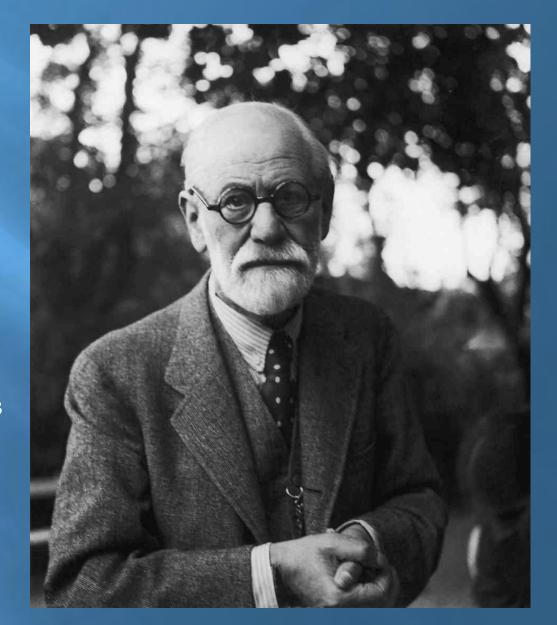
# History of Trauma

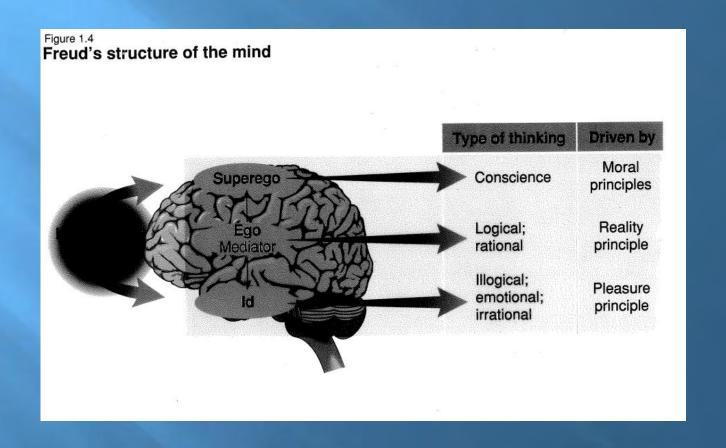
- "The study of trauma has become the soul of Psychiatry." (van der Kolk, 2007)
- PTSD as a diagnosis had created an organized framework for understanding how people's biology, perception of the world, and personalities have become intertwined and shaped by experience.

# Freud

#### PTSD as Neurosis

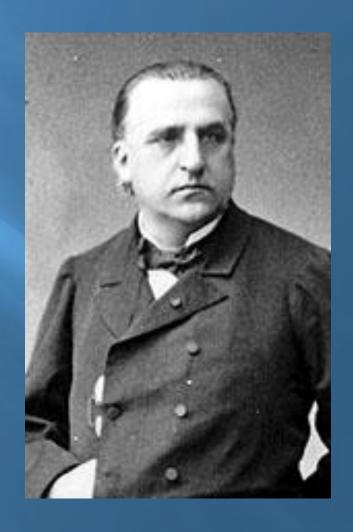
 A function of pathological persistence of defense mechanisms to ward off unconscious wishes and impulses.





#### Charcot

- Traumatic memories labeled as "parasites of the mind".
- Inability to integrate traumatic experiences with other life events.
- Flooded with flashbacks, intense emotions, rage, somatic sensations, nightmares



# Psychiatry's On Going Debate with Etiology

#### Etiology

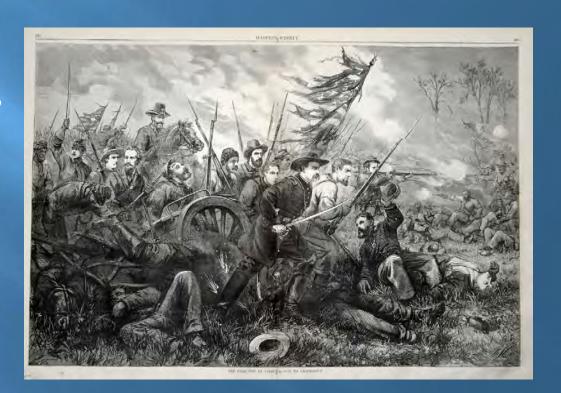
- "Is it organic or psychological?"
- "Is the trauma the event itself or its subjective interpretation?"
- "Does the trauma itself cause the disorder, or do preexisting vulnerabilities cause it?"
- Is it a question of malingering and moral weakness or involuntary disintegration of the capacity to take charge of their lives?

### Reality vs. Neurosis

 Unlike other disorders, the core issue of PTSD is reality (an event or series of events) (Caruth, 1995).

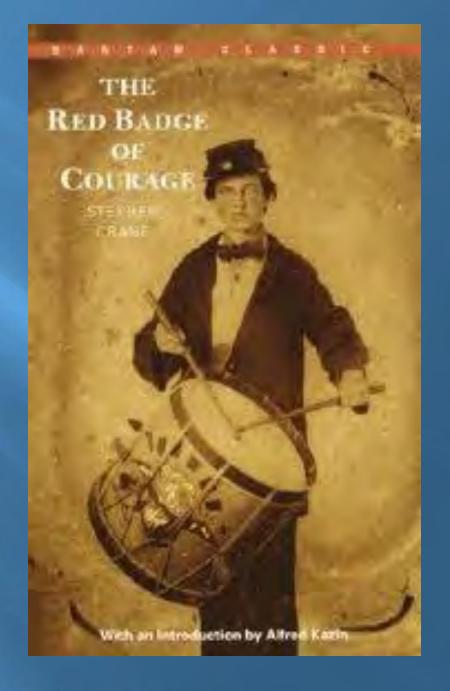
# Civil War

Reactions to stress



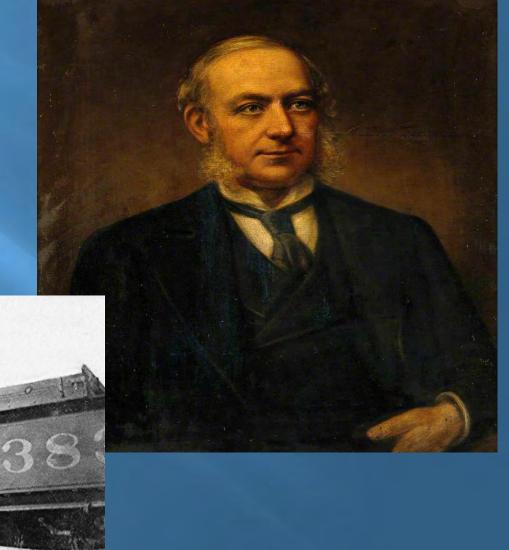
# Red Badge of Courage

Henry Fleming (anxiety symptoms)



#### John Eric Erichsen (1866–1886)

- Railways spines
- Psychological problems of the severely injured resulted from organic causes



# WWI

- Shell Shock
- Exposure to intense artillery



#### WWII

 Reactions described as "traumatic war neurosis, combat fatigue, battle stress, and gross stress reactions."



#### Vietnam War

No accepted diagnosis was available



#### Buffalo Creek Disaster, 1972

 Extension of mental health approach to the study of disasters



#### Manuals, 1976

- Emergency Disaster Management: A Mental Health Source Book
- Handbook of Mental Health for the Care of Disaster Victims

# History of Childhood PTSD

### Defining Event

- Chowchilla, 1976
  - School bus kidnapping
  - 26 children, ages 5-14
  - Entombed for 27 hours





#### ONE MONTH LATER

Driver Ed Ray (in August '76), with 22 of the children, in front of the town's memorial. He," says Rebecca Dailey, "gave us hope."

hear them shoveling dirt. We knew they weren't coming back. We screamed until we were worn out.

Lynda Carrejo Labendeira, teacher, Fresno. Age: 10 They left cereal, peanut butter and bread, but it was gone quickly. There was no ventilation, just a battery fan that died. It was like a grave, dark. Everyone had messed their pants, sweaty little bodies in 110 degrees. My sister passed out.

Michelle Robison Bishop, McDonald's worker, Chowchilla. Age: 11 When we were buried, I comforted a girl named Monica, She was just 5, I [later] named my daughter Monica. It reminds me I did something right.

Driver Ed Ray, who died May 17 at age 91, emerged as a hero, rallying the children and directing their escape.

Medrano He was a courageous man. He kept 26 scared children in line and made us feel safe.

Dailey We started stacking mattresses. Older kids started digging, Medrano We were as afraid to get out

I FIND IT HARD TO TRUST ANYONE.
OUR CHILDHOOD INNOCENCE Was stoi fn" -LYNDA CARREJO LABENDEIRA

**BURIED ALIVE** Workers (in July '76) excavated the van where the kids were held. Says Michelle Bishop of her captors: "I'd never let them out." GOING FREE Richard Schoenfeld (leaving for court in July '76) "is not

as to stay in; were they out there? After all of us were out, we started walking. [Finally] a man drove up and said, "Oh my God. You're those kids."

About five kids testified against Schoenfeld, his brother James and the third kidnapper, Frederick Woods.

Medrano [Afterward] I felt ashamed. I became depressed. I didn't want to be touched. I gained 50 lbs.

Psychiatrist Lenore Terr conducted interviews with the young victims and followed up several years later: in 1981 she published a study on childhood posttraumatic stress disorder in The American Journal of Psychiatry.

Terr They had a distorted idea about their future. They didn't count on a good career, getting married or a long life. They felt they would be killed, that another bad thing would happen. Some ended up in prison, others with drug and mental-health problems. Larry Park, group home director, Mer-

ced. Age: 6 For much of his life, Park battled schizophrenia and addiction: sober now, he counsels others. After the kidnapping I started to hear a voice in my head. When I was 11, it turned violent. I fantasized about killing my kidnappers. I've spent a lifetime blaming

the kidnapping for everything that went wrong in my life. I don't know if that's fair. But the kidnapping blew all the problems I had before wide open. Jennifer Brown Hyde, Nashville, Accounting assistant. Age: 9 I still sleep with a night light, can't ride a subway or go underground.

a danger," his lawyer says.

Medrano's son Matthew Medrano, 13 I understand why my mom has so many restrictions, why I can't ride a bus. One time I took one; she waited for me like I was gone my whole life. Schoenfeld declined to comment. His lawyer says he's been a model prisoner and is "remorseful." Frederick Woods comes up for parole this fall. James Schoenfeld will be eligible for a parole hearing in 2013. The victims, despite their anguish, have found comfort and healing in one another. Out of touch for many years, some have reconnected through Facebook and at Ray's funeral. Medrano It's been healthy for us to share our feelings. We have this unspoken bond. [At Ray's funeral] someone said, "We are glad we are here today." We all laughed because we are all here and we are doing well.

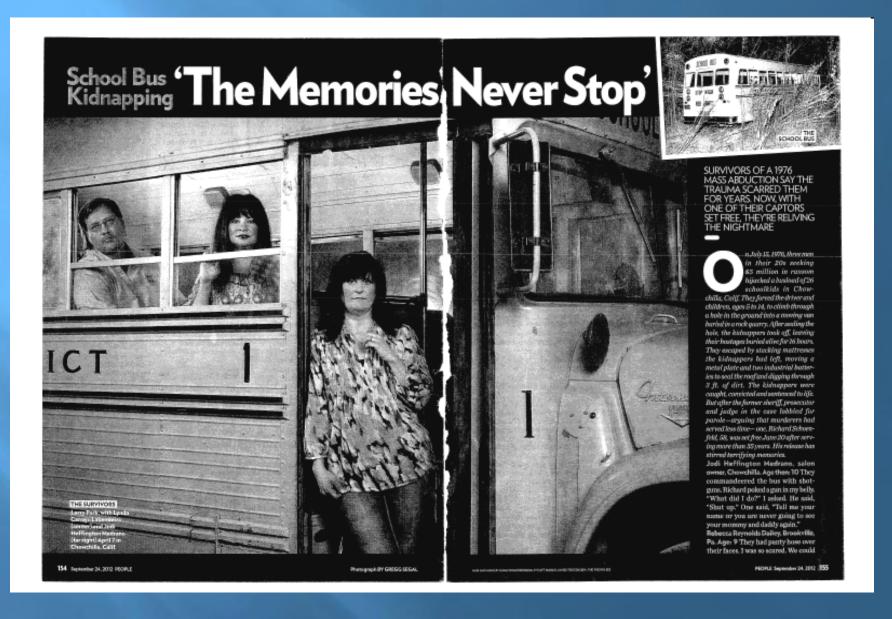
By Susan Young and Jill Smolowe

#### Consequences

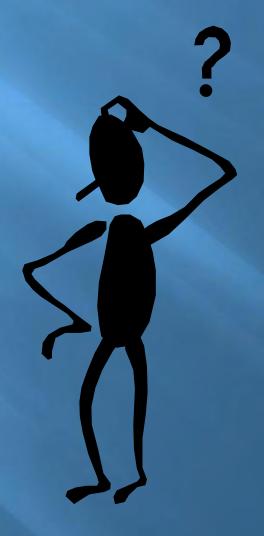
Psychiatrist Lenore Terr conducted interviews with the young victims and followed up several years later; in 1981 she published a study on childhood posttraumatic stress disorder in The American Journal of Psychiatry.

Terr They had a distorted idea about their future. They didn't count on a good career, getting married or a long life. They felt they would be killed, that another bad thing would happen. Some ended up in prison, others with drug and mental-health problems.

#### 35 years later...



# Why?



- 1. Triggers
- 2. Lack of social support





"I've got a hole in my roof, but a greater hole in my heart because no one is looking out for the kids..."

-Jeanne Brooks

"What this has done for most children is take away their past, alter their present, and possibly cause them to lose their futures."

-Jeanne Brooks

(Jan 11, 2006)

### Outside Support

- Help is on it's way...(The American Red Cross)
- Unless…





# REACT

RECOVERY EFFORT AFTER CHILD TRAUMA

# THE DISASTER PREPAREDNESS CAMPAIGN

FOR CHILDREN, PARENTS, AND TEACHERS
HELPING CHILDREN AND FAMILIES AFTER TRAUMA

Virginia Tech.

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

> Developed to Dr. Russell T. Jone Adam T. Waldrop, John Thom and the Stress and Coping Lab Membi

Department of Psychol Virgina 137 Williams Backsborg Vs 72 contact by phone (740) 231contact by ensail hyprocessor

#### Secondary Adversities...

- Loss
- Displacement
- Rebuilding

 Subsequent traumas ("The gift that keeps on giving", Bill Harris)

#### Role of the Media in Trauma



# Relationship of the Media on Behavior

- Violent video games
- Sexually stimulating stimuli
- Violent TV content

Disaster and Terrorism

#### US Exposure to Mass Trauma

- 15% of women
- 19% of men
- Most individuals are resilient

#### Impact of the Media

#### Adults

- September 11, 2001 Terrorist Attacks
- Days following WTC, 92% of adults surveyed reported feelings of sadness, 77% feelings of fright 45% feeling "tired out," resulting from TV coverage. Those with greatest exposure, reported symptoms of PTSD and traumatic grief (Pew Research Center, 2001).

- Many view traumatic events, esp. mass violence, as personal attacks or reminders of personal vulnerabilities rather than acts happening to others (Dixon et al. 1993)
  - " "What doesn't kill you...?"
- Three to five days later, "a trend" found between depression and trauma-related symptoms and number of news broadcasted images. Association strongest for those incurring direct losses or viewing individuals plummeting from towers (Ahern et al. 2002).
- Five to eight weeks later, correlations between those who viewed images of individuals falling or jumping from the towers exhibited symptoms of PTSD and depression only among those who were directly exposed.

- Those who had lost a significant other, who 2 to 3 years later reported watching the attacks live on TV, were more likely to report symptoms consistent with traumatic grief (Neria et al., 2007).
- Schlenger (2002) concluded that it does appear that those with symptoms of PTSD two months following the attacks consumed more disaster related news.

#### Multiple Traumas

- Israeli students multiple disaster exposures directly and through the media
- Since 2000, Israeli citizens exposed to suicide bombings, terrorists attacks and missile attacks.
- Main finding
  - Positive correlation between frequency of exposure to reports of terror in the media and higher levels of posttraumatic symptoms and distress symptoms.
  - Ben-zur, H., Gil, S., Shamshins, Y. (2012). The relationship between exposure to terror through the media, coping strategies and resources, and distress and secondary traumatization. International Journal of Stress Management, 19 (2), 132-150.

#### Children

- Oklahoma City Bombing, 1995
- There was no on-site coverage by the media-many survivors watched TV as a major source of information (Vasterman et al., 2005).
- In two studies Pfefferbaum et al. she stated that TV viewing in an aroused state may have potential psychological ramifications. She concluded that TV viewing had a small relationship with posttraumatic stress among children (whether directly or indirectly exposed), as did several investigators working with children (Saylor et al., 2003; Terr et al., 1999).
- However, a nonsignificant relationship between media exposure and distress- (Tucker et al., 2000).
- The long term impact of TV coverage on signs of distress is yet to be systematically assessed (Michels, 2002).

#### Explanation for These Findings

- Neuroscience model of Pavlovian fear conditioning and extinction
  - Development and maintenance function of "failure of basic extinction processes of learned fear memory."
  - Extinction based psychotherapies work well (PE, CPT).
  - Heuristic model yet to be applied to indirect exposure

#### Media Coverage of Terrorism

Meta-analysis (Houston, 2009)

# Definition of Terrorism Involves...

"(1) the use of threat or violence, (2) to create fear or intimidation, (3) in an audience of indirect victims,...(4) to affect changes in ideology, attitudes and behavior"

-Pfefferbaum

#### Two Theories

- Information Processing-info coded, shortmemory, long-term memory (Yes/No)
- Cognitive Model of PTSD-info stored as a trauma network in long-term memory (highly generalize – attentional bias)

#### Summary

#### Exposure

 Weighted mean effect size r = .152 media exposure and PTS (small but relevant to public health perspective in light of large scale terrorists attacks)

#### Role of Moderators

- PTSS & PTSR more likely than PTSD
- Exposure to multiple media sources (internet, cell phones, PDAs) vs.
   TV alone
- Age
  - youth vs. adults (youth have less cognitive ability & experience)
- Geographic proximity
  - those farther away more PTS than those closer-they depend on media more than those in close proximity to experience the event

#### Initial Conclusions

- Findings only correlations
- Watching TV may enable obtainment of information or lessen distress
- Children's reactions may be expressed more behaviorally than verbally
- Studies lacking methodological rigor because only based on self-report

### Future questions to be addressed:

- What is the impact of dramatic news stories on the public?
- Is learning about disasters upsetting and/or lead to major psychological problems?
- Are news reports of a dramatic event a part of the stressor itself and/or a part of the response to the stressor?
- Are media portrayals indicators of preexisting tendencies (avoidance)?

#### The Dart Center

#### **The Dart Center**

The Dart Center for Journalism and Trauma, a project of the Columbia University Graduate School of Journalism, is dedicated to informed, innovative and ethical news reporting on violence, conflict and tragedy.

Whether the topic is street crime, family violence, natural disaster, war or human rights, effective news reporting on traumatic events demands knowledge, skill and support. The Dart Center provides journalists around the world with the resources necessary to meet this challenge, drawing on a global, interdisciplinary network of news professionals, mental health experts, educators and researchers.

#### Problems with Misdiagnoses

DIAGNOSTS -AND BIATISTICAL -MANUAL

> MENTAL DISORDERS





DIAGNOSTIC AND STATISTICAL MANUAL OF DIACNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS (Trediples)

DSM-III

MENTAL DISORDERS



ANDRES

Diagnostic and Statistical Manual of Mental Disorders

Distriction Reserve

DSM-III-R

AMERICAN PSYCHURIC ASSOCIATION

MANUAL OF MENTAL DISORDERS

TOURDS DATES.

TEXT REVISION

DSM-IV-TR"

AMERICAN PSYCHIATRIC ASSOCIATION

DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS

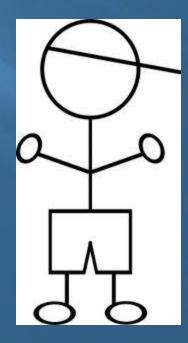
FIFTH EDITION

DSM-5

AMERICAN PSYCHIATRIC ASSOCIATION

#### Charles' Situation

Charles is an 8 year old boy from a single parent home in the inner city. He had never known his father and his mother struggles with drug use. He has at times encountered abusive behavior from his mother's boyfriend and from his peers.



#### Bad thoughts Paranoid

Withdrawn

**Easily Distracted** 

Often truamt

Often truamt

Defensive

Insomnia

Aches and Pains

Sleeps in Class

**Inattentive** 

Fighting with other kids

Irritability

Poor Hygiene

#### Don't blame the victim!

# What is Charles suffering from??

#### It could be...

- Depression
- Attention Deficit Hyperactivity Disorder
- Oppositional Defiant Disorder
- Conduct Disorder
- Panic

#### The disorder often left out is...



# PISD

#### Comorbidity/Misdiagnosis

PTSD	Depressive Disorders	ADHD	ODD
<ul> <li>Shock, denial, disbelief</li> <li>Shame, self-blame</li> <li>Feeling sad or hopeless</li> <li>Easily distracted</li> <li>Confusion</li> <li>Anxiety or fear</li> <li>Withdrawal</li> <li>Insomnia or nightmares</li> <li>Easily startled</li> <li>Racing heartbeat</li> <li>Aches and pains</li> <li>Fatigue</li> <li>Edginess and agitation</li> <li>Muscle tension</li> </ul>	<ul> <li>Fatigue</li> <li>Insomnia or nightmares</li> <li>Irritability</li> <li>Feeling sad or hopeless</li> <li>Withdrawal</li> </ul>	<ul> <li>Easily distracted</li> <li>Difficulty paying attention</li> <li>Not listen</li> <li>Difficulty following instructions and organization.</li> <li>Fidgets</li> </ul>	<ul> <li>Touchy or easily annoyed by others</li> <li>Angry and resentful</li> <li>Loses temper</li> <li>Argues with adults</li> </ul>

#### Comorbidities

#### Children

- Co-Morbidities
  - ADHD
  - Panic Disorder
  - GAD
  - MDD
  - Bipolar
  - SAD
  - OCD
  - Phobia
  - Substance use disorders
- Physical/Somatic Complaints

#### DSM-V Criteria for PTSD

- Criterion A: Stressor
- Criterion B: Intrusion Symptoms
- Criterion C: Avoidance
- Criterion D: Negative Alterations in Cognition and Mood
- Criterion E: Alterations in Arousal and Reactivity
- Criterion F: Duration
- Criterion G: Functional Significance
- Criterion H: Exclusion

#### An Additional Complication...

- Idioms of distress
  - Culturally significant or culturally bound ways of expressing distress
- African-Americans
  - More sympathy, sadness or anger (e.g., Chu, Seery, Ence & Silver, 2006)
- Asians
  - Symptoms including vertigo, dizziness, and blurred vision (Hsu & Folstein, 1997)
- Hispanics
  - Palpitations and chest pains (Escobar et al. 1987)

#### SAMHSA Podcast

Cultural Awareness: Children and Youth In Disasters

www.samhsa.gov/dtac/podcasts/culturalawareness/lib/playback.asp

#### Personal Pathways







#### My Brother





# My good looks? My knowledge?



#### **Publications**

- Jones, R. T., & Kazdin, A. E. (1980). Teaching children how and when to make emergency telephone calls. Behavior Therapy, 11, 509-521.
- Jones, R. T., Kazdin, A. E., & Haney, J. (1981). Social validation and training of emergency fire safety skills for potential injury prevention and life saving. Journal of Applied Behavior Analysis, 14, 249-260.
- Jones, R. T., Kazdin, A. E., & Haney, J. I. (1981). A follow-up to training emergency skills. Behavior Therapy, 12, 716-722.
- Haney, J. I., & Jones, R. T. (1982). Programming maintenance as a major component of a community-centered preventive effort: Escape from fire. Behavior Therapy, 13, 47-62.
- Jones, R. T., Van Hasselt, V. B., & Sisson, L. A. (1984). Emergency fire-safety skills: A study with blind adolescents. Behavior Modification, 8, 59-78.

#### **Publications**

- Jones, R. T., Van Hasselt, V. B., & Sisson, L. A. (1984). Emergency fire safety skills for blind children and adolescents: Group training and generalizations. Behavior Modification, 8, 267-286.
- Hillman, H., Jones, R. T., & Farmer L. (1986). The acquisition and maintenance of fire emergency skills: Effects of rationale and behavioral practice. Journal of Pediatric Psychology, 11, 247-258
- Jones, R. T., & McDonald III, D. (1986). Childhood injury: A prevention model for intervention. Education and Treatment of Children, 9, 307-319.
- Jones, R. T., & Thornton, J. L. (1987). The acquisition and maintenance of emergency evacuation skills with mildly to moderately retarded adults in a community living arrangement. Journal of Community Psychology, 15, 205-215.

## What happened to the teacher?

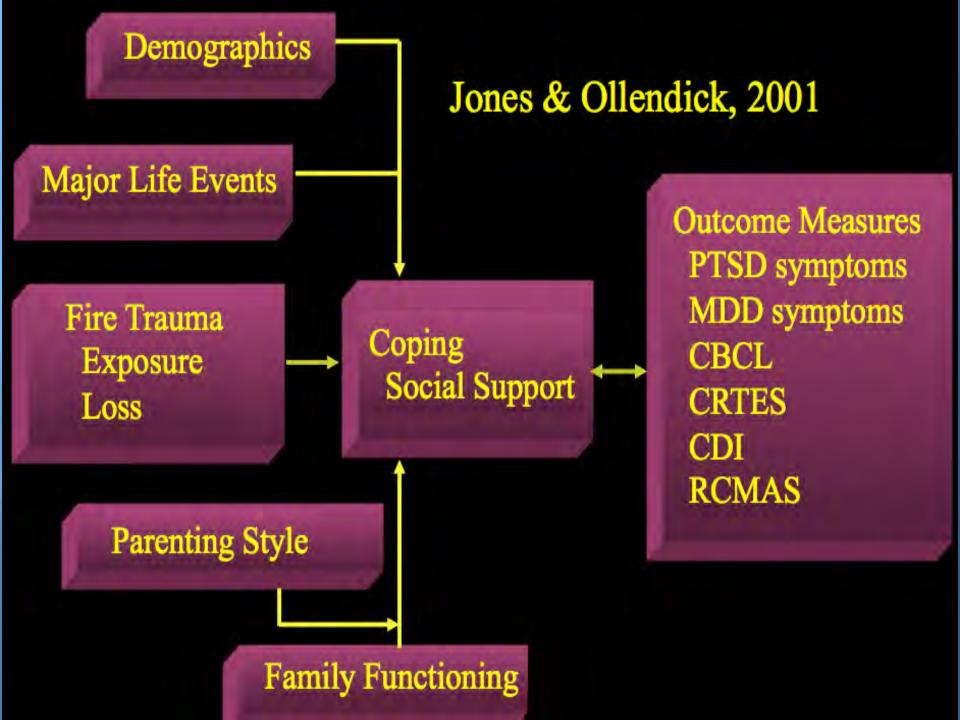


#### Types of Trauma

- Child abuse
  - Physical
  - Sexual
  - Emotional
- Interpersonal Violence
- Disasters
- War/Terrorism and Refugee
- Medical
  - Traumatic injuries
  - Car accidents
  - Fires
  - Cancer/other serious medical condition
  - TBI

## Who is most likely to develop PTSD?

Dose-Response Model

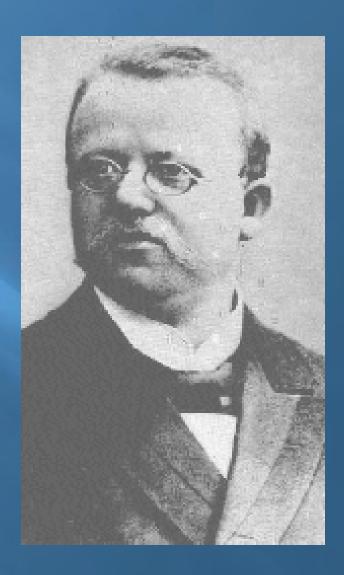


#### Neurobiological Consequences



#### Herman Oppenheim (1889)

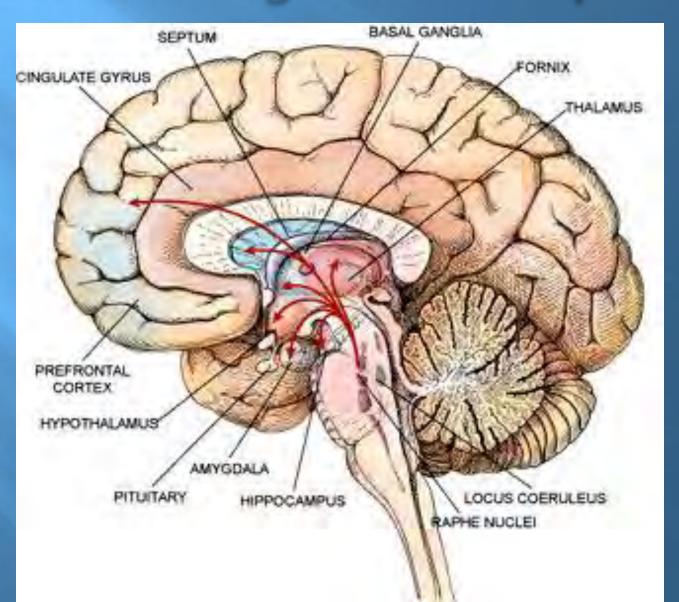
- German Neurologist
- Traumatic neurosis
- Functional problems resulted from "subtle molecular changes in the CNS".
- Cardiovascular symptoms combat soldiers
- "cardiac neurosis"
- "irritable heart"
- "soldiers heart"



#### PTSD is a Disorder of Memory

- The Grant Study (Lee et al. 1995)
- Examined 2 sets of Harvard undergrads who served in WW II
- Those with PTSD and those w/out PTSD
- Examined during undergrad and 45 years
- Findings: Those w/out PTSD considerably altered memory "most intense horror had been diluted."
- Those w/PTSD had not modified memory & memory was accompanied by thoughts, feelings and emotions.

#### Neurobiological Consequences



#### Brain Circuits in PTSD

- Amygdala hyperactivity, responsivity is associated with PTSD symptom severity
- Frontal cortex volume loss, responsivity is inversely associated with PTSD symptom severity
- Hippocampus volume loss, decreased neuronal and functional integrity

## Trauma's Impact on Growth

- What is the consequence of constant activation of the "fight or flight" response over time?
  - Damage to body systems: digestive system >
    ulcers
  - Shuts down important body functions (growth)



# Psychological Consequences

- Good News
  - 50% Completely Recover within 3 months
- Bad News...

# FACT: Trauma can impact school performance

- Lower GPA
- Higher rate of school absences
- Increased drop-out
- More suspensions and expulsions
- Decreased reading ability



# Single exposure to traumatic events may cause

- Jumpiness
- Intrusive thoughts
- Interrupted sleep and nightmares
- Anger and moodiness
- Social withdrawal

# Chronic exposure to traumatic events can

- Adversely affect attention, memory, and cognition
- Reduce a child's ability to focus, organize, and process information

- Interfere with effective problem solving and/or planning
- Result in overwhelming feelings of frustration and anxiety

# Physical and Emotional Distress

 Physical symptoms like headaches and stomachaches

- Poor control of emotions-Inconsistent academic performance
  - Unpredictable and/or impulsive behavior. Over or under-reacting to bells, physical contact, doors slamming, sirens, lighting



- Sudden movements
  - Intense reactions to reminders of their traumatic event
- Thinking others are violating their personal space
  - "What are you looking at?"
  - Blowing up when being corrected or told what to do by an authority figure
  - Fighting when criticized or teased by others
  - Resisting transition and/or change

### **Bottom Line**

Both neurobiological and psychological consequences

# How do you accurately diagnose PTSD and it's comorbidities?

#### Assessments

#### Children

- Screening
  - UCLA Posttraumatic Stress Disorder Reaction Index
  - Child PTSD Symptom Scale
  - CBCL
  - Trauma Symptom Checklist for Young Children
  - DICA (Diagnostic Interview Child and Adolescent)
  - ADIS (Anxiety Disorders Interview Schedule Lifetime)
  - \*\*CRTES (Child Reaction to Traumatic Events Scale)

#### Treatment

#### Child

- Play Therapy
- Psychological Debriefing
- Cognitive Behavioral Procedures
  - Exposure
  - Relaxation
  - Inaccurate Attributions
- TF-CBT\* (Evidenced Based)
  - Treats shame, self-blame, depression, and anxiety
  - Traumatic grief
  - Cognitive Behavior for Intervention of Trauma in Schools (CBITS)
  - Eye Movement Desensitization and Reprocessing (EMDR)
- SSRIs (Prozac, Zoloft)

#### AACAP OFFICIAL ACTION

#### Practice Parameter for the Assessment and Treatment of Children and Adolescents With Posttraumatic Stress Disorder

Cohen, J. A. et al.(2010). Practice parameter for the assessment and treatment of children and with posttraumatic stress disorder. Journal of the American Academy of Child & Adolescent Psychiatry, 49, 414-430.

### Standards

- Minimal standard (MS): based on rigorous empirical evidence and/ or overwhelming clinical consensus; randomized controlled trials.
- Clinical guidelines (CG): based on strong empirical evidence and/ or strong clinical consensus; nonrandomized controlled trials.
- Option (OP): based on emerging empirical evidence or clinical option, lack strong empirical evidence and/ or strong clinical consensus; uncontrolled trials, case series/ reports
- Not endorsed (NE): applied to practices that are known to be ineffective or contraindicated.

### Recommendation #1-Screening

"The psychiatric assessment of children and adolescents should routinely include questions about traumatic experiences and PTSD symptoms (MS)."

#### Recommendation #2-Evaluation

"If screening indicates significant PTSD symptoms, the clinician should conduct a formal evaluation to determine whether PTSD is present, the severity of those symptoms, and the degree of functional impairment. Parents or other caregivers should be included in this evaluation wherever possible (MS)."

# Recommendation #3-Differential Diagnoses

"The psychiatric assessment should consider differential diagnoses of other psychiatric disorders and physical conditions that may mimic PTSD (MS)."

#### Recommendation #4- Treatment

"Treatment planning should consider a comprehensive treatment approach which includes consideration of the severity and degree of impairment of the child's PTSD symptoms (MS)."

# Recommendation #5-Treatment with Comorbidities

"Treatment planning should incorporate appropriate interventions for comorbid psychiatric disorders (MS)."

- Depressive Disorders
- ADHD
- Substance Abuse
- Other Anxiety Disorders

# Recommendation #6-Trauma Focused Psychotherapies

"Trauma-focused psychotherapies should be considered first-line treatments for children and adolescents with PTSD (MS)."

"SSRIs can be considered for the treatment of children and adolescents with PTSD (OP)."

- Brand Generic
- Celexa- Citalopram
- Prozac- Fluoxetine
- Lexapro- Escitalopram
- Luvox- Fluvoxamine
- Paxil- Paroxetine
- Zoloft- Sertraline

"Medications other than SSRIs may be considered for children and adolescents with PTSD (OP)."

Generic Brand

- Clonidine- catapres, kapvay, nexiclon, Duraclon
  - Anxiety
- Propranolol- Inderal, Inderal LA, innopran XL
  - Anxiety, migraines

- Imipramine- tofranil, tofranil-PM
  - Depression
- Morphine- Astramorph PF, Avinza,
   Duramorph, Infurmorph, Kadian, Morphine
   Sulfate Sustained Release, MS Contin, MSIR,
   Oramorph SR, Roxanol
  - Moderate to severe pain
- Risperidone- Risperdal
  - Schizophrenia and bipolar disorder

"Treatment planning may consider school-based accommodations (CG)."

#### CBITS

 Cognitive Behavioral Intervention for Trauma in Schools

"Use of restrictive 'rebirthing' therapies and other techniques that bind, restrict, withhold food or water, or are otherwise coercive are not endorsed (NE)."

"School- or other community- based screening for PTSD symptoms and risk factors should be conducted after traumatic events that affect significant numbers of children (CG)."

- Screening should take place after approximately one month based on consensus from empirical findings.
- Models exist for successful, universal, schoolbased screenings in communities- level disasters- and for providing school-based treatment"

## To sum it up...

- Types of Disasters
- History of PTSD
- Role of the Media
- Neurobiological Consequences
- Psychological Consequences
- Assessment
- Treatment Implications



# The Silent Suffering of the Mental Health/Emergency Worker





# Or the person next to you...

# Top Stressors: Ingredients for Burnout

- 1. Emotional Depletion or Emotional Fatigue:
- 2. Vicarious Traumatization
- 3. Grandiosity and Demonization by Clients
- 4. Constant Worry
- 5. Distraction
- 6. Helplessness and Sense of Inefficiency
- 7. Inability to Shut Off the Therapeutic Stance
- 8. Worry About Board Investigations
- 9. Grandiosity
  - Zur Institute-1997

# It is more blessed to give than to receive...

But it's also nice to receive...









## The Virginia Tech Story

#### Book Chapter

- Jones, R. T., Donlon, K., Dugan Burns, K., Schwartz-Goel, K., Law, M.K., Tragedy at Virginia Tech: Recommendations for mental health response to crisis on campus. In C. L. Mears (Ed.), Reclaiming school in the aftermath: Advice based on experience (pp.153-173). New York: Palgrave Macmillan, 2012.
- The aftermath of the shootings at Virginia Tech: A chronology of the first nine months (Jones in press)
  - Journal of Critical Incident Analysis

Available on website

# "Out of darkness comes light" Post-traumatic Growth

- Applications for undergraduate admission have continued to increase since 2007.
- Run in Remembrance, "3.2 for 32", celebrates the lives of those lost.
- Strong sense of community/"hokie" spirit continues to increase (community efficacy).

# Knowledge is Powerful

## Workshops

#### Pre-conference

- Psychological First Aid (parts 1 &2)
- Healing the Heart from Trauma with Stories,
   Stillness, and Dancing
- Assessing, Intervening and Treating Traumatized Adults
- Is It In You? The Role of Playfulness in Healing & Strengthening Children

#### Workshops (con't)

#### Conference Day

- Working with Immigrant Survivors of Trauma: Safely Discussing Traumatic Memories
- From Research to Practice: Yoga-Based Psychotherapy for Children Who Have Experienced Trauma and Neglect
- From Risk to Protection: Engaging Caregivers Affected by
- Interpersonal Trauma in Child and family focused Trauma Treatment
- Lives in Limbo
- Treating Traumatized Women at Marian House: A Therapeutic Approach of Empowerment

### Workshops (con't)

- The Link Between Attachment Disorder and Human
- Easy as A-B-C: Adapting the D-E-f framework to Guide Trauma Informed Assessments and Intervention Across Systems (Part 1)
- Elder Abuse: Recognizing the Problem, Creating Innovative
- Interventions
- Trauma Interventions for Young Children Kay Martel
- Improving the Odds of Positive Long-Term Outcomes for Emerging Young Adults Transitioning from foster Care to Adulthood

## Workshops (con't)

- What's the Story? The Power of Relationship and Narrative in Trauma Recovery
- Easy as A-B-C: Adapting the D-E-f framework to Guide Trauma Informed Assessments and Intervention Across Systems (Part 2)
- Treating Complex Trauma in Child Welfare
- The Enough Abuse Campaign: An Introduction to Child Sexual Abuse Prevention
- Safe Streets Baltimore: A Public Health Approach to Reducing Gun Violence



#### Who remembers...

...the term for multiple rocket engines working together?

# Gimble

## Maximum Thrust

Maximum Direction

Maximum Efficiency

"Let's get ready to rumble..."

Let's get ready to GIMBLE!

### Dr. Russell T. Jones

137 Williams Hall Virginia Tech

Phone: 540-231-5934

Fax: 540-231-3652

Email: rtjones@vt.edu

www.firetraumas.com

# Free Items On firetraumas.com

- Current Vitae
- Brochures:
  - Coping after fire
  - Police stress management
  - Helping children throughout the recovery process
  - ABC's of fire
- Podcasts
  - Cultural awareness
  - Helping children and youth cope in the aftermath of disaster
- Dr. Oz: Making sense of Newtown

- C-SPAN videos:
  - School Safety, Day 1 and 2
  - Populations at risk for Terrorism
- Fire related resources
  - Residential Fires by Jones and Ollendick
  - Beyond the Scars talk
- CRTES-R
- Jones Journal

### Dr. Russell T. Jones

137 Williams Hall Virginia Tech

Phone: 540-231-5934

Fax: 540-231-3652

Email: rtjones@vt.edu

www.firetraumas.com

#### References

- Ahern, J., Galea, S., Resnick, H., Kilpatrick, D., Bucuvalas, M., Gold, J., & Vlahov, D. (2002). Television images and psychological symptoms after the September 11 terrorist attacks. *Psychiatry: Interpersonal and Biological Processes*, 65, (4), 289-300.
- Ben-zur, H., Gil, S., Shamshins, Y. (2012). The relationship between exposure to terror through the media, coping strategies and resources, and distress and secondary traumatization. *International Journal of Stress Management*, 19 (2), 132-150.
- Caruth, C. (1995). Explorations in memory. Baltimore, Maryland: The Johns Hopkins University Press.
- Chu, T. Q., Seery, M. D., Ence, W. A., Holman, E. A., & Silver, R. (2006). Ethnicity and gender in the face of a terrorist attack: A national longitudinal study of immediate responses and outcomes two years after September 11. *Basic and Applied Social Psychology*, 28 (4).
- © Cohen, J. A. et al.(2010). Practice parameter for the assessment and treatment of children and with posttraumatic stress disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 49, 414-430.
- Escobar J. I., Golding, J. M., Hough, R. L., Karno, M., Burnam, M. A., Wells, K. B. (1987).

  Somatization in the community: Relationship to disability and use of services. *American Journal of Public Health*, 77 (7), 837-840.
- Houston, B. (2009). Media coverage of terrorism: A meta-analytic assessment of media use and posttraumatic stress. Journalism and Mass Communication Quarterly, 86 (4), 844-861.
- Neria, Y., Gross, R., Litz, B., Maguen, S., Insel, B., Seirmarco, G., Rosenfield, H., Suh, E. J., Kishon, R., Cook, J., & Marshall, R. D. (2007). Prevalence and psychological correlates of complicated grief among bereaved adults 2.5–3.5 years after September 11th attacks. *Journal of Traumatic Stress*, 20 (3), 251–262.

#### References cont.

- Norris, F. H., Friedman, M. J., & Watson, P. J. (2002). 60,000 disaster victims speak: Part II. Summary and implications of the disaster mental health research. Psychiatry, 65, 240-260.
- Norris, F. H., M. J., Watson, P. J., Byrne, C. M., Diaz, E., & Kaniasty, K. (2002). 60,000 disaster victims speak: Part I. An empirical review of the empirical literature, 1981-2001. *Psychiatry*, 65, 207-239.
- Rubonis, A. V. & Bickman, L. (1991). Psychological impairment in the wake of disaster: The disaster-psychopathology relationship. *Psychological Bulletin*, 109 (3), 384-399.
- Saylor, C. F., Cowart, B. L., Lipovsky, J. A., Jackson, C., & Finch, A. J. (2003). Media exposure to September 11 elementary school students' experiences and posttraumatic symptoms. American Behavioral Scientist, 46 (12), 1622-1642.
- Schlenger, W. E., Caddell, J. M., Ebert L, Jordan, K., Rourke, K. M., Wilson, D., Thalji, L., Dennis, M., Fairbank, J. A., & Kulka, R. A. (2002). Psychological reactions to terrorist attacks: Findings from the national study of Americans' reactions to September 11.
- Terr, L. C., Bloch, D. A., Michael, B. A, Shi, H., Reinhardt, J. A., & Metayer, S. (1999). Children's symptoms in the wake of challenger: A field study of distant-traumatic effects and an outline of related conditions. The American Journal of Psychiatry, 156 (10), 1536-1544.
- Tucker, P., Pfefferbaum, B., Nixon, S., Dickson, W. (2000). Predictors of post-traumatic stress symptoms in oklahoma city: Exposure, social support, peritraumatic responses. The Journal of Behavioral Health Sciences and Research, 27 (4), 406-416.
- Vasterman, P., Yzermans, C. J., & Dirkzwager, A. (2005). The role of the media and media hypes in the aftermath of disasters. Epidemiologic Reviews, 27, 107-114.

#### **Image Credits**

- http://i1.ytimg.com/vi/Y2cPuv6jKqg/hqdefault.jpg
- http://media.npr.org/assets/img/2013/03/08/3274654-sigmund-freud-portrait\_custom-74f04f5f6641adcdb203fb3a041b3916f4c5585c-s6-c30.jpg
- http://www.pbs.org/wgbh/aso/databank/entries/images/b5char010541.jp
   eg
- http://www.brainpickings.org/wp-content/uploads/2013/03/frankl3.jpg
- http://ichef.bbci.co.uk/arts/yourpaintings/images/paintings/well/large/cdn\_well\_v\_17850\_large.jpg
- http://www.uic.edu/depts/mcne/founders/oppenhm.gif
- □ <a href="http://images.npg.org.uk/264\_325/7/4/mw56674.jpg">http://images.npg.org.uk/264\_325/7/4/mw56674.jpg</a>
- http://www.ourstory.info/library/3-FF/SLF/images/prof41.jpg
- http://upload.wikimedia.org/wikipedia/commons/thumb/c/c1/Jozef\_Babinski2.jpg/220px-Jozef\_Babinski2.jpg
- http://www.umc.org/atf/cf/%7BDB6A45E4-C446-4248-82C8-E131B6424741%7D/hs\_bonhoeffer\_dietrich\_.jpg
- http://www.cwu.edu/~lafrenierem/CIVILWARwebquery.html
- http://upload.wikimedia.org/wikipedia/commons/a/af/WhiteHouseSouth Facade.JPG

- http://images.indiebound.com/118/210/9780553210118.jpg
- http://www.warmemorial.columbia.edu/wars/world-war-i
- https://www.nationalinfantrymuseum.org/guest-blog-on-theanniversary-of-d-day-remembering-the-soldiers-and-those-who-ledthem/
- http://www.bostonglobe.com/metro/2012/10/30/witness-transcriptsfrom-cocoanut-grove-fire-are-released-tell-dramatic-story-historic-bostonblaze/ErDncLdE682FvDmaBUrNqM/story.html
- http://upload.wikimedia.org/wikipedia/en/a/a1/Smoke\_rises\_Cocoan ut\_Grove.jpg
- http://www.unstrange.com/images/dsm.jpg
- http://www.historynet.com/vietnam-war
- http://kidsandmeds.umwblogs.org/files/2010/10/41LIc8JOrQL.\_SL500
   \_AA300\_.jpg
- http://upload.wikimedia.org/wikipedia/en/d/db/DSM-IV-TR.jpg
- https://encryptedtbn2.gstatic.com/images?q=tbn:ANd9GcRCkAo23nCg MICvZf62LBfVen1GttS2w0dgJRscO1sal1YWOuo\_

- http://a.abcnews.com/images/US/ap\_wildfires\_colorado\_wy\_120628\_ wg.jpg
- http://images.nationalgeographic.com/wpf/medialive/photos/000/332/cache/japan-earthquake-tsunami-nuclearunforgettable-pictures-wave\_33291\_600x450.jpg
- http://thinkprogress.org/wp-content/uploads/2013/09/Shooting-Navy-Yard-victim-2-555x416.jpg
- http://media.npr.org/assets/img/2012/12/16/sandy-hook\_wide-462036b923230d016fe927dde62992de3512faa4-s6-c30.jpg
- http://i.cdn.turner.com/cnn/interactive/2012/07/us/aurora.shooting/img/car\_search\_kdvr.jpg
- http://studentnurselaura.files.wordpress.com/2010/07/dsm-1.jpg
- http://www.tmc.edu/tmcnews/10\_15\_00/photo\_01b.jpg
- http://www.goneboy.com/dsm3r\_files/dsm3r.jpg
- http://voices.washingtonpost.com/blog-post/tbi.JPG
- http://www.oklahomacitybombing.com/images/oklahoma-citybombing-25.jpg
- http://i6.photobucket.com/albums/y238/rvrlynn/DOSE%20PO
   STS/4-17-07/capt-16.jpg