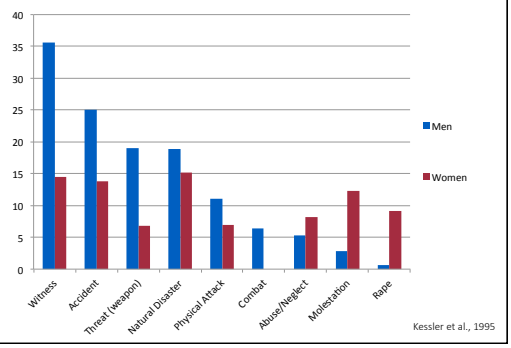
Outline

- How do people respond to natural disasters?
- What is PTSD?
- What to do and what *not* to do to treat PTSD effectively

How do people respond to natural disasters?

Exposure to Traumatic Events in U.S.



Kessler et al., 1995

Normal or Unexpected?

- A key issue is understanding those responses that are normal versus those that require intervention
- There are several barriers to effective identification of people who need intervention following a disaster

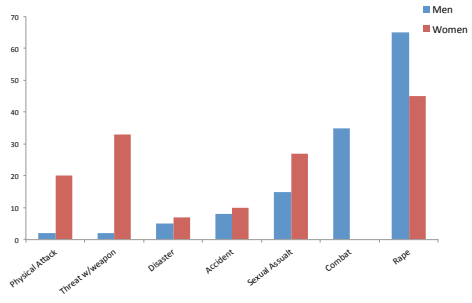
Barriers to Effective Identification

- In adults and children, lack of knowledge about typical and atypical reactions hampers identification
- For adults, public, self, or structural stigma surrounding about mental health can lead to lying about symptoms
- May also lead to people not even knowing that what they are experiencing is indicative of problems

Barriers to Effective Identification

- A strong response to a disaster or trauma is *normal and expected*
- Up to 90% of children and adults show psychological reactions immediately after a disaster, 20-50% show reactions up to a year later
- Majority of these will not need services other than care and support from family, friends, and school/ work

PTSD as a Function of Type of Trauma



Kessler et al., 1995, 1999

Barriers in Children

- There are two **myths** about children who have experienced disasters:

1. Children are innately resilient and will quickly recover, even from extreme trauma
2. Children are not disturbed by disasters unless their parents have strong responses

Barriers in Children

- Teachers and parents may misinterpret problematic behavior as just being willful
- Adults may not wish to be reminded of their own reactions, and thus ignore or minimize a child's reaction
- Most children respond appropriately to a disaster, which leads some to think that all the children are doing so

How We React

- Three phases of a person's reaction to a disaster:

1. During the disaster
2. Immediately following the disaster
3. Long-term reactions to the disaster

- Certain types of reactions are normal during each phase

During the Disaster

- When confronted with a trauma, we all have the "fight or flight" response due to autonomic nervous system activation:
- Muscles tense, heart pounds
- Nerves are on high alert
- Intense anxiety or fear
- Shock, sense of unreality, not understanding what is happening

Immediately Following

- In the weeks after a trauma, up to 90% of people may experience:
- Heightened physiological arousal
- Diffuse anxiety
- Survivor guilt
- Emotional lability
- These are all normal reactions and should be met with understanding and support

Long-Term

- By 1-2 years post-disaster, the majority of people will show few problematic symptoms
- A time to watch out for, however, is the anniversary of the disaster
- Those still displaying the following difficulties 3-4 months after the disaster may need further assessment

Symptoms of Concern

- In children below age 6, these may indicate problematic adjustment to the disaster
  - Generalized anxiety about separation, strangers, or sleep problems
  - Avoidance of certain situations
  - Preoccupation with certain symbols / words
  - Limited emotional expression or play activities
  - Loss of previously acquired skills

Symptoms of Concern

- For older children, warning signs of problematic adjustment are
  - Repetitious play reenacting a part of the disaster
  - Preoccupation with danger or expressed concerns about safety
  - Sleep disturbances and irritability
  - Anger outbursts or aggressiveness
  - Excessive worry about family or friends
  - School avoidance, particularly involving somatic complaints
  - Behaviors characteristic of younger children
  - Changes in personality, withdrawal, and loss of interest in activities

Symptoms of Concern

- In adults, watch out for the following:
  - Increase in substance use
  - Avoidance of support networks
  - Dropping out of activities
  - Trouble accomplishing tasks at work
  - Increase in conflict with spouse/family
- One or more of these may be indicative of a maladaptive response to the disaster – of being a victim rather than a survivor

Victims to Survivors

- Victims are those who feel they have no control over their current situation
- Survivors are those who have regained a sense of control and are able to meet the demands of whatever difficulty confronts them
- Victims are passive and dependent on others, survivors are active and involved

What is PTSD?

Trauma and Stress Related Disorders

- An inappropriately severe response to a trauma across a long period of time, resulting in functional impairment, can appear in many ways

- Reactive Attachment Disorder
- Disinhibited Social Engagement Disorder
- Posttraumatic Stress Disorder
- Acute Stress Disorder
- Adjustment Disorders

Major changes from DSM-IV to -5

- *Posttraumatic Stress Disorder*
  - More specific about how event was experienced
  - Subjective reaction eliminated
  - Four major symptom clusters rather than three
  - Developmentally sensitive for kids ages 6 or younger

- *Reactive Attachment Disorder* now divided into two distinct diagnoses
  - Emotionally withdrawn/inhibited (RAD)
  - Indiscriminately social/disinhibited (Disinhibited Social Engagement Disorder)

Common Features across TSRDs

- Intrusive Memories
- Avoidance
- Negative changes in thinking and mood
- Changes in emotional reactions

PTSD in the DSM-5

Criterion A: Exposure

The person was exposed to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence, as follows:

1. Direct exposure
2. Witnessing, in person
3. Indirectly, by learning that a close relative or close friend was exposed to trauma. If the event involved actual or threatened death, it must have been violent or accidental.
4. Repeated or extreme indirect exposure to aversive details of the event(s), usually in the course of professional duties (e.g., first responders, collecting body parts; professionals repeatedly exposed to details of child abuse)
   - *This does not include indirect non-professional exposure through electronic media, television, movies or pictures*

PTSD in the DSM-5

Criterion B: Intrusion symptoms (at least 1)

- Spontaneous or cued recurrent, involuntary, and intrusive distressing memories of the event(s).
- Recurrent distressing dreams in which the content and/or affect of the dream is related to the event(s).
- Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the event(s) were recurring
- Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the event(s)
- Marked physiological reactions to reminders of the event(s)

PTSD in the DSM-5

Criterion C: Persistent avoidance of stimuli associated with the trauma (at least 1)

- Avoids internal reminders (thoughts, feelings, or physical sensations) that arouse recollections of the traumatic event(s)
- Avoids external reminders (people, places, conversations, activities, objects, situations) that arouse recollections of the traumatic event(s).

PTSD in the DSM-5

Criterion D: Negative alterations in cognitions and mood that are associated with the traumatic event (3 or more)

- Inability to remember an important aspect of the traumatic event(s)
- Persistent and exaggerated negative expectations about one's self, others, or the
- Persistent distorted blame of self or others about the cause or consequences of the traumatic event(s)
- Pervasive negative emotional state
- Markedly diminished interest or participation in significant activities
- Feeling of detachment or estrangement from others
- Persistent inability to experience positive emotions

PTSD in the DSM-5

Criterion E. Alterations in arousal and reactivity that are associated with the traumatic event (3 or more)

- Irritable or aggressive behavior
- Reckless or self-destructive behavior
- Hypervigilance
- Exaggerated startle response
- Problems with concentration
- Sleep disturbance

PTSD in the DSM-5

F. Persistence of symptoms (in Criteria B, C, D and E) for more than one month

G. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning

H. Not due to medication, substance or illness

DSM-5 PTSD, Preschool Subtype

- Relative to broader diagnosis for those over 6 years, several changes
- Criterions A and B – no change
- Criterions C and D – only need 1 symptom from either one
  - C cluster – no change
  - D cluster – 4 instead of 7 symptoms
    - Does not include amnesia, foreshortened future, persistent blame of self or others
- Criterion E – only 2 symptoms needed
  - Preschool does not include symptom of "reckless behavior"

Preschool PTSD in the DSM-5

Criterion A: Exposure

The person was exposed to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence, as follows:

1. Direct exposure
2. Witnessing, in person
3. Indirectly, by learning that a close relative or close friend was exposed to trauma. If the event involved actual or threatened death, it must have been violent or accidental.
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Preschool PTSD in the DSM-5

Criterion B: Intrusion symptoms (at least 1)

- Spontaneous or cued recurrent, involuntary, and intrusive distressing memories of the event(s).
- Recurrent distressing dreams in which the content and/or affect of the dream is related to the event(s).
- Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the event(s) were recurring
- Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the event(s)
- Marked physiological reactions to reminders of the event(s)

Preschool PTSD in the DSM-5

Criterion C: Persistent avoidance of stimuli associated with the trauma *or* changes in cognitions and mood (at least 1)

- Avoids internal reminders (thoughts, feelings, or physical sensations) that arouse recollections of the traumatic event(s)
- Avoids external reminders (people, places, conversations, activities, objects, situations) that arouse recollections of the traumatic event(s).

Preschool PTSD in the DSM-5

- Substantially increased frequency of negative emotional states (e.g., fear, guilt, sadness, shame, confusion)
- Markedly diminished interested or participation in significant activities, including constriction of play
- Socially withdrawn behavior
- Persistent reduction in expression of positive emotions

Preschool PTSD in the DSM-5

Criterion D. Alterations in arousal and reactivity that are associated with the traumatic event (2 or more)

- Irritable or aggressive behavior
- Hypervigilance
- Exaggerated startle response
- Problems with concentration
- Sleep disturbance

Preschool PTSD in the DSM-5

E. Persistence of symptoms (in Criteria B, C, D and E) for more than one month

F. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning

G. Not due to medication, substance or illness

PTSD Specifiers

- With dissociative symptoms
  - The individual's symptoms meet the criteria for PTSD and the individual experiences persistent or recurrent symptoms of either of the following:

1. Depersonalization
   - Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of, one's mental processes or body
   - Feeling as though one were in a dream, feeling a sense of unreality of self or body or of time slowly moving
2. Derealization: Persistent or recurrent experiences of unreality of surroundings
   - The world around the individual is experienced as unreal, dreamlike, distant, or disordered

PTSD Specifiers

- With delayed expression
  - If the full diagnostic criteria is not met until at least 6 months after the event.

PTSD Prevalence

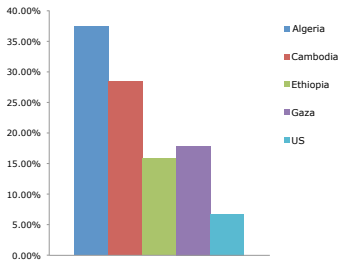
- 61% of men and 51% of women experience a trauma in their lifetime
- More than 25% experience multiple traumas
- Lifetime rate 6.8%, current rate 3.6%

Kessler et al., (1995, 2005)

Most Vulnerable Populations

- Those whose experience was especially terrifying or extreme
- Children between 5-10 years of age, especially if separated from parents
- Those without strong social support networks
- Those with a prior history of any type of traumatic experience

PTSD is Higher in Populations with More Trauma



Lifetime PTSD in four post-conflict settings and US

De Jong et al., 2001

PTSD Risk Factors

- Pretraumatic event:
  - Female gender
  - Some genetic factors
  - Childhood trauma
  - Previous psychiatric problems
  - Lower level of education
  - Lower socioeconomic status
  - Minority race

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PTSD Risk Factors

- Peritraumatic event:
  - Greater perceived threat or danger, and helplessness increases risk
  - Unpredictability and uncontrollability of traumatic event also increases risk
- Posttraumatic event:
  - Lack of social support, life stress, attributions

Gender Differences

- Much higher rates in females in civilian populations
- Equal rates seen in military populations, although some controversy over this

Oklahoma and Tornadoes

- Oklahoma averages 54 tornadoes year, more per square mile than anywhere else on Earth
- Research has shown very high levels of PTSD in OK children
  - 66% of *non-exposed* children had moderate or high levels of PTSS during tornado season (Romero, 1997)
  - 41% met PTSD criteria one year later (Evans & Oehler-Stinnett, 2006)
  - 52% of exposed children had moderate or higher levels of PTSS at 18 months post-tornado (Lack, 2003)
- Higher than in other tornado survivors outside of Oklahoma (Lack et al., 2010)

Why Such High Rates in OK?

- Re-exposure to environmental cues
- Exposure to trauma-related media
- Modeling of trauma-response by adults

Uniquely Oklahoman

- Luckily, the distress seems to be highly specific, with no evidence of generalized distress or functional impairments for most children exposed to tornadoes who have PTSS (Lack, 2003; Lack, 2006)
- Such a response *may* be more "phobic" than PTSD for *many* Oklahomans, given these factors

Impact of PTSD

- Elevated risk of mood, other anxiety, and substance abuse disorders
- Greater functional impairment
- Reduced quality of life
- Elevated risk of poor physical health

What to do and what *not* to do to treat PTSD

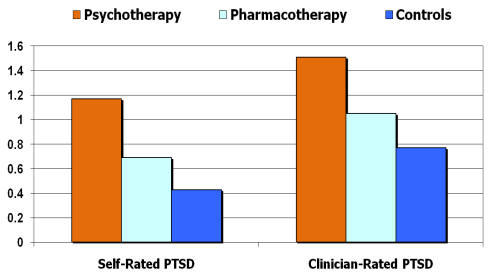
EBT for PTSD

- There is a huge and very strong evidence base for the use of cognitive-behavioral therapies to treat PTSD
  - Prolonged exposure therapy
  - Cognitive processing therapy
  - Trauma-focused CBT
- But, there are many proponents of pseudoscientific, non-EBT treatments as well

CBT for PTSD

- The various forms of CBT are much more effective than medications in reducing PTSD symptoms
- Medication, however, is more readily available and can useful for treating comorbid problems *or* lowering symptoms enough to be able to engage in doing CBT

Meta-Analysis of PTSD Treatments



Van Etten & Taylor, 1998

Pharmacology for PTSD

- SSRIs are the most well studied and most often prescribed
- They outperform placebos significantly, in both civilian and military populations
- Venlafaxine (Effexor) slightly outperforms SSRIs in both populations

CBT for PTSD

- Prolonged exposure (PE), cognitive processing therapy (CPT), and trauma-focused CBT (TF-CBT) are consistently shown to be effective treatments for PTSD
- General components shared are
  - Psycho-education
  - Anxiety management
  - Exposure
  - Cognitive restructuring

Prolonged Exposure (PE)

1. Psycho-education: Patient learns about trauma and PTSD
2. Breathing skills: Learns to manage anxiety
3. In vivo exposure: Confronts feared stimuli in real life
4. Imaginal exposure: Involves mental exposure to trauma by repeated telling of memories

Cognitive Processing Therapy (CPT)

1. Education about PTSD, thoughts and emotions
2. Processing trauma (with or without account)
3. Challenging thoughts
4. Cognitive restructuring

TF-CBT

- Developed specifically for children and adolescents

1. Psychoeducation
2. Relaxation and stress management
3. Affect expression and modulation
4. Cognitive coping
5. Trauma narration
6. Cognitive processing
7. Behavior Management Training
8. Parent-child sessions

PE or CPT for Adults?

- Not a lot is known about treatment matching
- Most important is to use evidence-based therapy
  - Dropout rates are similar
  - Therapist comfort
  - Patient preference

Pseudoscientific PTSD Therapies

- Critical incident stress management (CISM)
- Eye movement desensitization and retraining (EMDR)
- Emotional freedom technique (EFT) and thought field therapy (TFT)

Conclusions

- Experiencing trauma is very common, but most people will come through without mental health problems
- Be on the lookout for warning signs that can predict long-term difficulties adjusting
- Know how PTSD presents differently in children and adults
- Use effective, evidence-based treatments to help those struggling