Today’s Talk

- PTSD symptoms in DSM-IV versus DSM-5
- Initial research on DSM-5
  - PTSD Prevalence
  - DSM-5 Factor Structure
  - Dissociative Subtype
- How changes to the diagnosis have affected PTSD assessment instruments
PTSD DSM-IV Criteria

- PTSD is an Anxiety Disorder with 6 Criteria:
  - Criterion A: Stressor Criterion
  - Criterion B: Reexperiencing Criterion
  - Criterion C: Avoidance/Numbing Criterion
  - Criterion D: Arousal Criterion
  - Criterion E: Duration
  - Criterion F: Clinically Significant Distress/Impairment
PTSD DSM-5 Criteria

• PTSD is a **Trauma- and Stressor-Related** Disorder with **8 Criteria**:
  • Criterion A: Stressor Criterion
  • Criterion B: Intrusion Criterion
  • Criterion C: Avoidance Criterion
  • Criterion D: Negative Alterations in Cognition or Mood Criterion
  • Criterion E: Arousal and Reactivity Criterion
  • Criterion F: Duration
  • Criterion G: Clinically Significant Distress/Impairment
  • Criterion H: *Not attributable to effects of substance/medical condition*
## Criterion A: Stressor Criterion

<table>
<thead>
<tr>
<th>Criterion A1</th>
<th>DSM-5</th>
<th>DSM-IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Directly experiencing the traumatic event(s)</td>
<td></td>
<td>The person experienced, witnessed, or was confronted with an event or events…</td>
</tr>
<tr>
<td>2. Witnessing, in person, the event(s) as it occurred to others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s)</td>
<td>Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways…</td>
<td>…that involved actual or threatened death or serious injury, or threat to the physical integrity of self or others</td>
</tr>
<tr>
<td>Criterion A2</td>
<td>N/A</td>
<td>Person’s response involved intense fear, helplessness, or horror</td>
</tr>
</tbody>
</table>
## Criterion B: Intrusion Criterion

<table>
<thead>
<tr>
<th></th>
<th>DSM-5</th>
<th>DSM-IV: Reexperiencing Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s)</td>
<td>Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions</td>
</tr>
<tr>
<td>B2</td>
<td>Recurrent distressing dreams in which content and/or affect of the dream are related to traumatic event(s)</td>
<td>Recurrent distressing dreams of the event</td>
</tr>
<tr>
<td>B3</td>
<td>Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring</td>
<td>Acting or feeling as if the traumatic event were recurring</td>
</tr>
<tr>
<td>B4</td>
<td>Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s)</td>
<td>Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event</td>
</tr>
<tr>
<td>B5</td>
<td>Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s)</td>
<td>Physiological reactivity to internal or external cues that symbolize or resemble an aspect of the traumatic event</td>
</tr>
</tbody>
</table>
## Criterion C: Avoidance Criterion

<table>
<thead>
<tr>
<th>DSM-5</th>
<th>DSM-IV: Avoidance/Numbing Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C1</strong> Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s)</td>
<td>C1 Efforts to avoid thoughts, feelings, or conversations associated with the trauma</td>
</tr>
<tr>
<td><strong>C2</strong> Avoidance of or efforts to avoid external reminders that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s)</td>
<td>C2 Efforts to avoid activities, places, or people that arouse recollections of the trauma</td>
</tr>
<tr>
<td><strong>D1</strong> Inability to remember an important aspect of the traumatic event(s)</td>
<td>C3 Inability to recall an important aspect of the trauma</td>
</tr>
<tr>
<td><strong>D5</strong> Markedly diminished interest or participation in significant activities</td>
<td>C4 Markedly diminished interest or participation in significant activities</td>
</tr>
<tr>
<td><strong>D6</strong> Feelings of detachment or estrangement from others</td>
<td>C5 Feeling of detachment or estrangement from others</td>
</tr>
<tr>
<td><strong>D7</strong> Persistent inability to experience positive emotions</td>
<td>C6 Restricted range of affect</td>
</tr>
<tr>
<td><strong>D2</strong> Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world</td>
<td>C7 Sense of foreshortened future</td>
</tr>
</tbody>
</table>
## Criterion D: Negative Alterations in Cognition and Mood

<table>
<thead>
<tr>
<th>DSM-5</th>
<th>DSM-IV: Avoidance/Numbing Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D1</strong> Inability to remember an important aspect of the traumatic event(s)</td>
<td><strong>C3</strong> Inability to recall an important aspect of the trauma</td>
</tr>
<tr>
<td><strong>D2</strong> Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world</td>
<td><strong>C7</strong> Sense of foreshortened future</td>
</tr>
<tr>
<td><strong>D3</strong> Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>D4</strong> Persistent negative emotional state</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>D5</strong> Markedly diminished interest or participation in significant activities</td>
<td><strong>C4</strong> Markedly diminished interest or participation in significant activities</td>
</tr>
<tr>
<td><strong>D6</strong> Feelings of detachment or estrangement from others</td>
<td><strong>C5</strong> Feeling of detachment or estrangement from others</td>
</tr>
<tr>
<td><strong>D7</strong> Persistent inability to experience positive emotions</td>
<td><strong>C6</strong> Restricted range of affect</td>
</tr>
</tbody>
</table>
### Criterion E: Arousal and Reactivity Criterion

<table>
<thead>
<tr>
<th>DSM-5</th>
<th>DSM-IV: Arousal Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E1</strong> Irritable behavior and angry outbursts typically expressed as verbal or physical aggression toward people or objects</td>
<td><strong>D2</strong> Irritability or outbursts of anger</td>
</tr>
<tr>
<td><strong>E2</strong> Reckless or self-destructive behavior</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>E3</strong> Hypervigilance</td>
<td><strong>D4</strong> Hypervigilance</td>
</tr>
<tr>
<td><strong>E4</strong> Exaggerated startle response</td>
<td><strong>D5</strong> Exaggerated startle response</td>
</tr>
<tr>
<td><strong>E5</strong> Problems with concentration</td>
<td><strong>D3</strong> Difficulty concentrating</td>
</tr>
<tr>
<td><strong>E6</strong> Sleep disturbance</td>
<td><strong>D1</strong> Difficulty falling or staying asleep</td>
</tr>
</tbody>
</table>
Additional DSM-5 Criteria

- **Criterion F:** Duration of disturbance is more than 1 month
  - Criterion E in DSM-IV

- **Criterion G:** The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning
  - Criterion F in DSM-IV

- **Criterion H:** The disturbance is not attributable to the physiological effects of a substance or another medical condition
## Specifiers

<table>
<thead>
<tr>
<th>DSM-5</th>
<th>DSM-IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>With delayed <strong>expression</strong></td>
<td>With delayed <strong>onset</strong></td>
</tr>
<tr>
<td>N/A</td>
<td><strong>Acute versus Chronic</strong></td>
</tr>
<tr>
<td><strong>With dissociative symptoms</strong></td>
<td>N/A</td>
</tr>
</tbody>
</table>
Three Main Areas of Research

• Do the changes to the diagnosis affect PTSD prevalence?
• What is the factor structure of the DSM-5 symptoms?
• How are individuals with the dissociative subtype different from other PTSD sufferers?
<table>
<thead>
<tr>
<th>DSM-5 Algorithm</th>
<th>DSM-IV Algorithm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criterion A Stressor</td>
<td>Criterion A Stressor</td>
</tr>
<tr>
<td>1 or more Criterion B items</td>
<td>1 or more Criterion B items</td>
</tr>
<tr>
<td>1 or more Criterion C items</td>
<td>3 or more Criterion C items</td>
</tr>
<tr>
<td>2 or more Criterion D items</td>
<td>2 or more Criterion D items</td>
</tr>
<tr>
<td>2 or more Criterion E items</td>
<td>Criterion E (Duration of at least 1 month)</td>
</tr>
<tr>
<td>Criterion F (Duration of at least 1 month)</td>
<td>Criterion F (Distress/Impairment)</td>
</tr>
<tr>
<td>Criterion G (Distress/Impairment)</td>
<td></td>
</tr>
<tr>
<td>Criterion H (Not due to substance/medical condition)</td>
<td></td>
</tr>
</tbody>
</table>
PTSD Prevalence

Hoge, Riviere, Wilk, Herrell, & Weathers, 2014
PTSD Prevalence

Hoge, Riviere, Wilk, Herrell, & Weathers, 2014
Understanding Discrepancy

• Common reasons to meet DSM-IV but not DSM-5:
  • Exclusion of non-accidental, non-violent deaths from Criterion A
  • Requirement of at least 1 active avoidance symptom

• Common reasons to meet DSM-5 but not DSM-IV:
  • Requirement of at least 3 Criterion C symptoms
  • Requirement of at least 2 Criterion D symptoms
DSM-5 Factor Structure

• Why is this important?
  • Implications for:
    • Diagnostic algorithms
    • Prevalence rates
    • Individual diagnostic status
  • Provides information about:
    • Comorbidity
    • Etiological models
  • Allows investigation into association between symptom clusters and PTSD maintenance
DSM-5 Factor Structure

• To date, eight CFA studies have tested various combinations of eight different models:
  • 1 PTSD Factor
  • DSM-5
  • Externalizing Behaviors
  • Anhedonia
  • 7-Factor Hybrid
  • DSM-IV
  • Dysphoria
  • Dysphoric Arousal
<table>
<thead>
<tr>
<th>DSM-5 Symptom</th>
<th>1 PTSD factor</th>
<th>DSM-5 Externalizing Behaviors</th>
<th>Anhedonia</th>
<th>Hybrid</th>
<th>DSM-IV Dysphoria</th>
<th>Dysphoric Arousal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1 Memories</td>
<td>P</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td></td>
<td>R</td>
</tr>
<tr>
<td>B2 Dreams</td>
<td>P</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>B3 Flashbacks</td>
<td>P</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>B4 Cued distress</td>
<td>P</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>B5 Physical reactions</td>
<td>P</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>C1 Avoiding internal reminders</td>
<td>P</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A/N</td>
<td>A</td>
</tr>
<tr>
<td>C2 Avoiding external reminders</td>
<td>P</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A/N</td>
<td>A</td>
</tr>
<tr>
<td>D1 Dissociative amnesia</td>
<td>P</td>
<td>NAMC</td>
<td>NAMC</td>
<td>NA</td>
<td>A/N</td>
<td>D</td>
</tr>
<tr>
<td>D2 Negative beliefs</td>
<td>P</td>
<td>NAMC</td>
<td>NAMC</td>
<td>NA</td>
<td>A/N</td>
<td>D</td>
</tr>
<tr>
<td>D3 Blame</td>
<td>P</td>
<td>NAMC</td>
<td>NAMC</td>
<td>NA</td>
<td>A/N</td>
<td>D</td>
</tr>
<tr>
<td>D4 Negative feelings</td>
<td>P</td>
<td>NAMC</td>
<td>NAMC</td>
<td>NA</td>
<td>A/N</td>
<td>D</td>
</tr>
<tr>
<td>D5 Loss of interest</td>
<td>P</td>
<td>NAMC</td>
<td>AN</td>
<td>AN</td>
<td>A/N</td>
<td>D</td>
</tr>
<tr>
<td>D6 Detachment or estrangement</td>
<td>P</td>
<td>NAMC</td>
<td>AN</td>
<td>AN</td>
<td>A/N</td>
<td>D</td>
</tr>
<tr>
<td>D7 Numbing</td>
<td>P</td>
<td>NAMC</td>
<td>AN</td>
<td>AN</td>
<td>A/N</td>
<td>D</td>
</tr>
<tr>
<td>E1 Angry behavior</td>
<td>P</td>
<td>H</td>
<td>DA</td>
<td>EB</td>
<td>H</td>
<td>D</td>
</tr>
<tr>
<td>E2 Reckless behavior</td>
<td>P</td>
<td>H</td>
<td>DA</td>
<td>EB</td>
<td>H</td>
<td>D</td>
</tr>
<tr>
<td>E3 Hypervigilance</td>
<td>P</td>
<td>H</td>
<td>AA</td>
<td>AA</td>
<td>AA</td>
<td>AA</td>
</tr>
<tr>
<td>E5 Concentration</td>
<td>P</td>
<td>H</td>
<td>DA</td>
<td>DA</td>
<td>H</td>
<td>D</td>
</tr>
<tr>
<td>E6 Sleep</td>
<td>P</td>
<td>H</td>
<td>DA</td>
<td>DA</td>
<td>H</td>
<td>D</td>
</tr>
</tbody>
</table>
Results of CFA Studies

• Larger models tend to have the best fit
  • 7 factor hybrid model is the best
• Fit for the DSM-5 four-factor model ranges from adequate to poor
Implications of CFA Studies

• DSM-5 model may not be the best fit for the data
  • Similar to research done with DSM-IV
  • May inform next iteration of the PTSD diagnosis
• Additional research is still needed
Dissociative Subtype

Steuwe, Lanius, & Frewen, 2012
Dissociative Subtype

• Proportion:
  • 6%-30% of trauma exposed samples
  • 15%-30% of PTSD samples

• Higher on:
  • Conversion
  • Borderline Features
  • Facets of the Schizophrenia Spectrum

• More severe:
  • PTSD
  • Depression and Anxiety Symptoms
  • Alcohol Use Problems
  • Hostility
Dissociative Subtype

- Dissociation in the Context of PTSD:
  - Interferes with emotional processing
  - May negatively impact treatment outcome

- Need additional research to determine how to best treat individuals with this subtype
PTSD Assessment Instrument Modifications

• Changes to the PTSD diagnosis require changes to assessment instruments

• Changes have been made to National Center for PTSD instruments:
  • Primary Care PTSD Screen (PC-PTSD)
  • Life Events Checklist (LEC)
  • PTSD Checklist (PCL)
  • Clinician Administered PTSD Scale (CAPS)
Primary Care PTSD Screen

• Originally developed by Prins et al. (2003)
• Trauma stem with four yes/no items
• Screen for PTSD in primary care
• Good psychometric properties
• Cutoff of 3
Sometimes things happen to people that are unusually or especially frightening, horrible, or traumatic. For example, a serious accident or fire, physical or sexual assault or abuse, earthquake or flood, war, seeing someone be killed or seriously injured, or having a loved one die through homicide or suicide. Have you ever experienced this kind of event?

If no, screen total = 0; if yes, continue with screening.

In the past month, have you…

<table>
<thead>
<tr>
<th>PC-PTSD-5</th>
<th>PC-PTSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Had nightmares about the event(s) or thought about the event(s) when you did not want to?</td>
<td>1. Have you had nightmares or thought about it when you did not want to?</td>
</tr>
<tr>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>2. Tried hard not to think about the event(s) or went out of your way to avoid situations that reminded you of the event(s)?</td>
<td>2. Tried hard not to think about it or went out of your want to avoid situations that reminded you of it?</td>
</tr>
<tr>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>3. Been constantly on guard, watchful, or easily startled?</td>
<td>3. Were constantly on guard, watchful, or easily startled?</td>
</tr>
<tr>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>4. Felt numb or detached from others, activities, or your surroundings?</td>
<td>4. Felt numb or detached from others, activities, or your surroundings?</td>
</tr>
<tr>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>5. Felt guilty or unable to stop blaming yourself or others for the event(s) or any problems the event(s) may have caused?</td>
<td>In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month, you…</td>
</tr>
<tr>
<td>Yes/No</td>
<td></td>
</tr>
</tbody>
</table>
Primary Care PTSD Screen

• Initial psychometric properties of PC-PTSD-5 (Prins et al., 2014) look strong
• Need to establish a valid cutoff score
Life Events Checklist

• LEC 17-item screen for Criterion A events
  • Gray, Litz, Hsu, & Lombardo, 2004
• List of 17 PTEs
  • Participants rate level of exposure:
    • Experienced
    • Witnessed
    • Learned about it
    • Not sure
    • Does not apply
Life Events Checklist

• Updated version is the LEC-5
  • Weathers, Litz, et al., 2013

• Two modifications:
  • “Sudden, unexpected death of someone close to you” changed to “sudden accidental death”
  • Response category added to reflect repeated exposure
Life Events Checklist

Listed below are a number of difficult or stressful things that sometimes happen to people. For each event please check one or more of the boxes to the right to indicate that: (a) it happened to you personally; (b) you witnessed it happen to someone else; (c) you learned about it happening to a close family member or close friend; (d) you were exposed to it as part of your job (for example, paramedic, police, military, or other first responder); or (e) you’re not sure if it fits.

Be sure to consider your entire life (growing up as well as adulthood) as you go through the list of events.

<table>
<thead>
<tr>
<th>Event</th>
<th>Happened to me</th>
<th>Witnessed it</th>
<th>Learned about it</th>
<th>Part of my job</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Natural disaster (for example, flood, hurricane, tornado, earthquake)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Fire or explosion</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Transportation accident (for example, car accident, boat accident, train wreck, plane crash)</td>
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</tr>
<tr>
<td>4. Serious accident at work, home, or during recreational activity</td>
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</tbody>
</table>
PTSD Checklist

- One of the most widely used self-report measures of PTSD
- Excellent psychometric properties
- 17 items scored from 1 (not at all) to 5 (extremely)
  - Weathers, Litz, Herman, Huska, & Keane (1993)
PTSD Checklist

• PCL-5 (Weathers, Litz, et al., 2013) reflects changes to the diagnosis
  • 20 items
  • Scale of 0 (not at all) to 4 (extremely)

• Three versions:
  • No Criterion A assessment
  • Brief Criterion A assessment
  • LEC-5 and detailed Criterion A assessment
PTSD Checklist

• Initial examination suggests psychometric properties are excellent
  • Bovin et al., under review:
    ◦ Internal consistency $\alpha = .96$
    ◦ Test-retest reliability $r = .84$
    ◦ Signal detection analyses found a cutoff score of 31 to 33 among Veterans
Clinician Administered PTSD Scale

• CAPS-IV is the gold standard PTSD interview
  • Blake et al., 1995
• Assesses DSM-IV PTSD Criteria A-G and dissociative features
• 17 symptoms of Criteria B-D assessed on two separate 5-point scales
Clinician Administered PTSD Scale

• CAPS-5 (Weathers, Blake et al., 2013) designed to:
  • Ensure correspondence with DSM-5
  • Retain distinctive features
  • Maximize backward compatibility with the CAPS-IV
• Assesses PTSD Criteria A-G and dissociative subtype
• 20 symptoms of Criteria B-E assessed on one 5-point severity scale
Criterion B: Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:

1. (B1) Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s). Note: In children older than 6 years, repetitive play may occur in which themes or aspects of the traumatic event(s) are expressed.

In the past month, have you had any unwanted memories of (EVENT) while you were awake, so not counting dreams? [Rate 0=Absent if only during dreams]

How does it happen that you start remembering (EVENT)?

[If not clear:] (Are these unwanted memories, or are you thinking about [EVENT] on purpose?) [Rate 0=Absent unless perceived as involuntary and intrusive]

How much do these memories bother you?

Are you able to put them out of your mind and think about something else?

[If not clear:] (Overall, how much of a problem is this for you? How so?)

Circle: Distress = Minimal Clearly Present Pronounced Extreme

How often have you had these memories in the past month? # of times __________

Key rating dimensions = frequency / intensity of distress
Moderate = at least 2 X month / distress clearly present, some difficulty dismissing memories
Severe = at least 2 X week / pronounced distress, considerable difficulty dismissing memories

0 Absent
1 Mild / subthreshold
2 Moderate / threshold
3 Severe / markedly elevated
4 Extreme / incapacitating
Clinician Administered PTSD Scale

• Three versions:
  • Past month
  • Past Week
  • Past Month/Worst Month

• Psychometric properties of the CAPS-5 are strong
  • Comparable to CAPS-IV
Take Home Points

• Substantial changes were made to the PTSD diagnosis in DSM-5

• Initial research suggests:
  • Overall PTSD prevalence is equivalent, but individual categorization is discordant
  • DSM-5 four-factor model may not be the best fit for the data
  • Individuals with the dissociative subtype are more severe and may need unique treatment approaches

• Revised instruments demonstrate comparable psychometric properties to earlier versions
References


References

Thank You!

Questions?

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Michelle.Bovin@va.gov