

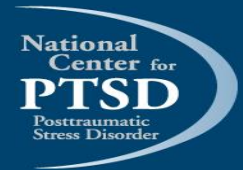
PTSD in DSM-5

Michelle J. Bovin, Ph.D.

National Center for PTSD, Behavioral Sciences Division
VA Boston Healthcare System

Boston University School of Medicine
Boston, MA

Michelle.Bovin@va.gov



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

	DSM-5	DSM-IV
Criterion A1	<p>...1. Directly experiencing the traumatic event(s)</p> <p>2. Witnessing, in person, the event(s) as it occurred to others</p> <p>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</p> <p>4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s)</p>	<p>The person experienced, witnessed, or was confronted with an event or events...</p>
	<p>Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways...</p>	<p>...that involved actual or threatened death or serious injury, or threat to the physical integrity of self or others</p>
Criterion A2	N/A	<p>Person's response involved intense fear, helplessness, or horror</p>

Criterion B: Intrusion Criterion

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

Criterion C: Avoidance Criterion

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

Criterion D: Negative Alterations in Cognition and Mood

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

Criterion E: Arousal and Reactivity Criterion

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

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

DSM-5	DSM-IV
With delayed expression	With delayed onset
N/A	Acute versus Chronic
With dissociative symptoms	N/A

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?

DSM-5 Algorithm

Criterion A Stressor

1 or more Criterion B items

1 or more Criterion C items

2 or more Criterion D items

2 or more Criterion E items

Criterion F (Duration of at least 1 month)

Criterion G (Distress/Impairment)

Criterion H (Not due to substance/medical condition)

DSM-IV Algorithm

Criterion A Stressor

1 or more Criterion B items

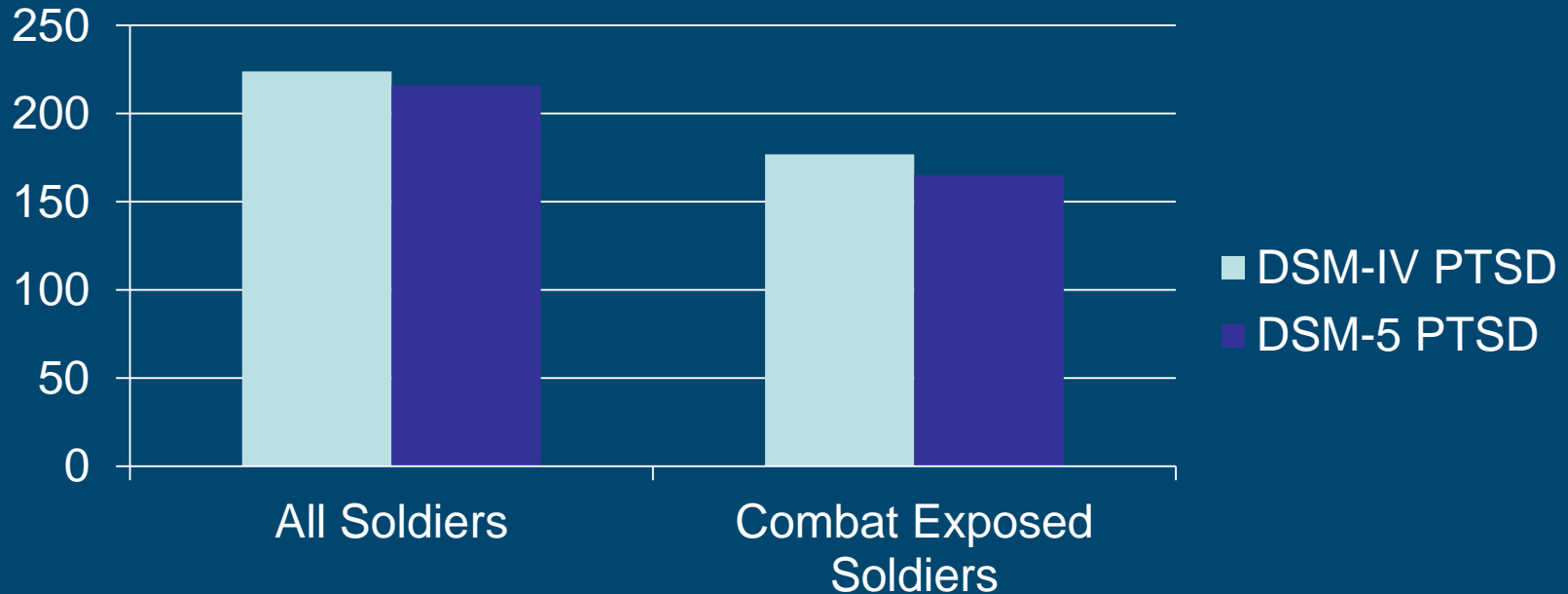
3 or more Criterion C items

2 or more Criterion D items

Criterion E (Duration of at least 1 month)

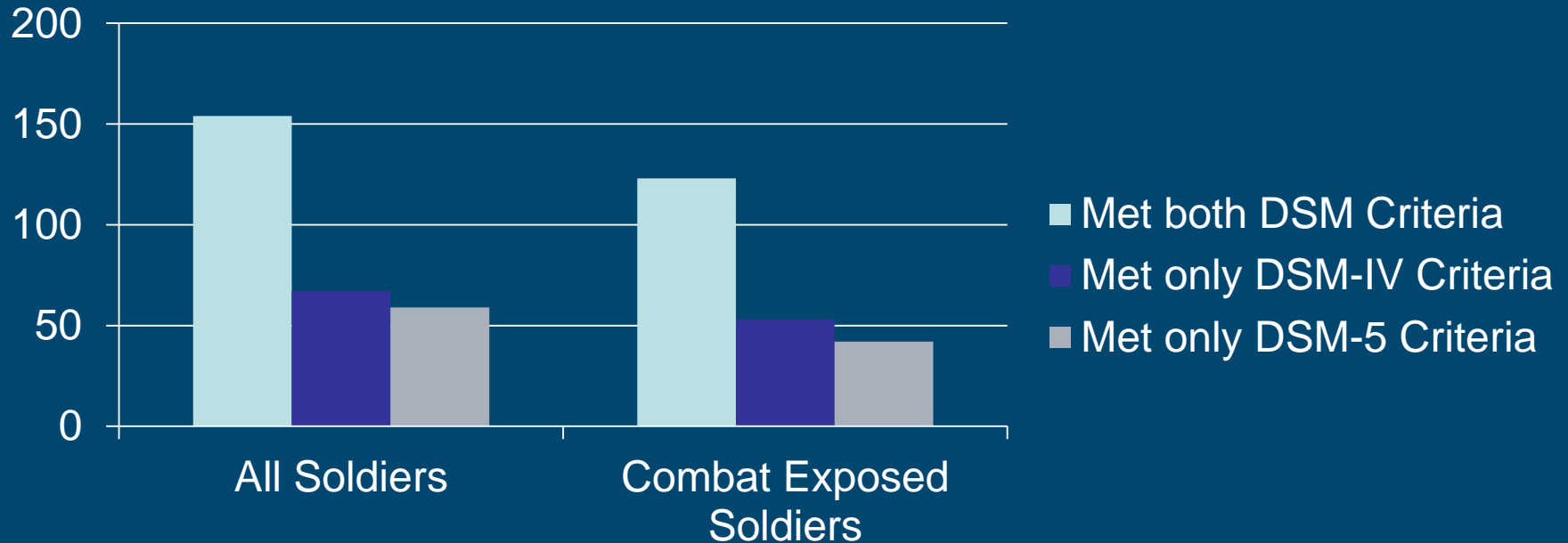
Criterion F (Distress/Impairment)

PTSD Prevalence



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

PTSD Prevalence



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

DSM-5 Symptom	1 PTSD factor	DSM-5	Externalizing Behaviors	Anhedonia	Hybrid	DSM-IV	Dysphoria	Dysphoric Arousal
B1 Memories	P	R	R	R	R	R	R	R
B2 Dreams	P	R	R	R	R	R	R	R
B3 Flashbacks	P	R	R	R	R	R	R	R
B4 Cued distress	P	R	R	R	R	R	R	R
B5 Physical reactions	P	R	R	R	R	R	R	R
C1 Avoiding internal reminders	P	A	A	A	A	A/N	A	A
C2 Avoiding external reminders	P	A	A	A	A	A/N	A	A
D1 Dissociative amnesia	P	NAMC	NAMC	NAMC	NA	A/N	D	NAMC
D2 Negative beliefs	P	NAMC	NAMC	NAMC	NA	A/N	D	NAMC
D3 Blame	P	NAMC	NAMC	NAMC	NA	A/N	D	NAMC
D4 Negative feelings	P	NAMC	NAMC	NAMC	NA	A/N	D	NAMC
D5 Loss of interest	P	NAMC	NAMC	AN	AN	A/N	D	NAMC
D6 Detachment or estrangement	P	NAMC	NAMC	AN	AN	A/N	D	NAMC
D7 Numbing	P	NAMC	NAMC	AN	AN	A/N	D	NAMC
E1 Angry behavior	P	H	EB	DA	EB	H	D	DA
E2 Reckless behavior	P	H	EB	DA	EB	H	D	DA
E3 Hypervigilance	P	H	AA	AA	AA	H	H	AA
E4 Startle	P	H	AA	AA	AA	H	H	AA
E5 Concentration	P	H	DA	DA	DA	H	D	DA
E6 Sleep	P	H	DA	DA	DA	H	D	DA

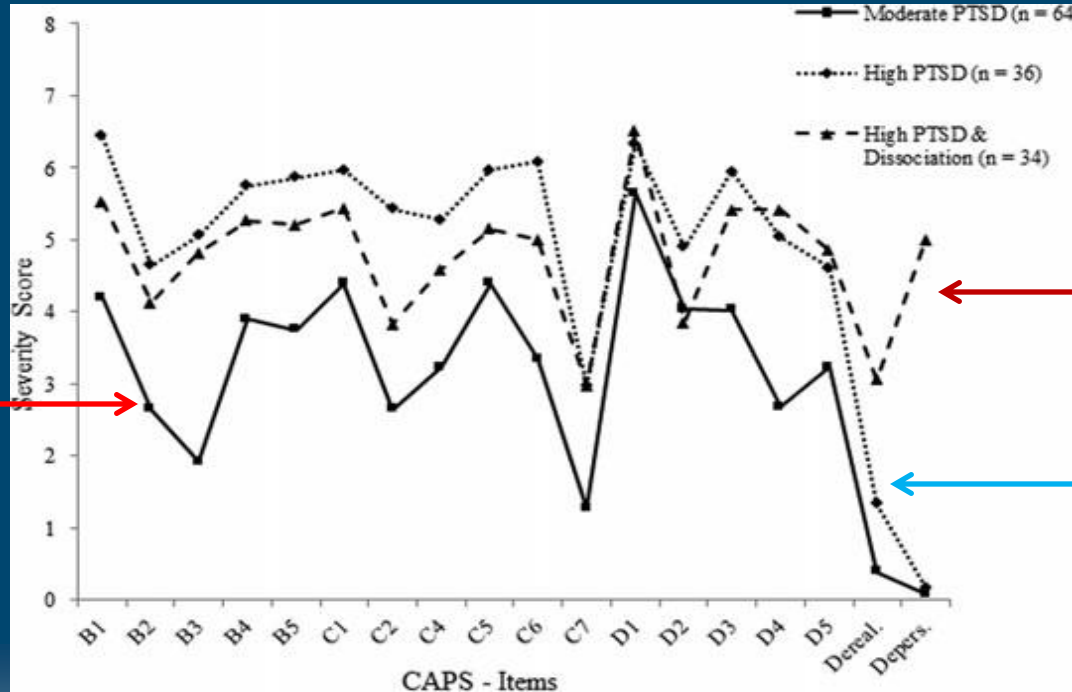
Results of CFA Studies

- 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



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

Primary Care PTSD Screen

PC-PTSD-5		PC-PTSD	
<p>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?</p> <p style="text-align: center;">If no, screen total = 0; if yes, continue with screening.</p> <p>In the past month, have you...</p>		<p>In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, <u>in the past month</u>, you...</p>	
1. Had nightmares about the event(s) or thought about the event(s) when you did not want to?	Yes/No	1. Have you had nightmares or thought about it when you did not want to?	Yes/No
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)?	Yes/No	2. Tried hard not to think about it or went out of your way to avoid situations that reminded you of it?	Yes/No
3. Been constantly on guard, watchful, or easily startled?	Yes/No	3. Were constantly on guard, watchful, or easily startled?	Yes/No
4. Felt numb or detached from others, activities, or your surroundings?	Yes/No	4. Felt numb or detached from others, activities, or your surroundings?	Yes/No
5. Felt guilty or unable to stop blaming yourself or others for the event(s) or any problems the event(s) may have caused?	Yes/No		

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.

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

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

- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington VA: American Psychiatric Association.
- Armour, C., Tsai, J., Durham, T. A., Charak, R., Biehn, T. L., Elhai, J. D., & Pietrzak, R. H. (2015). Dimensional structure of DSM-5 posttraumatic stress symptoms: Support for a hybrid anhedonia and externalizing behaviors model. *Journal of Psychiatric Research*, 61, 106-113.. <http://dx.doi.org/10.1016/j.jpsychires.2014.10.012>
- Blake, D. D., Weathers, F. W., Nagy, L. M., Kaloupek, D. G., Gusman, F. D., Charney, D. S., & Keane, T. M. (1995). The development of a clinician-administered PTSD scale. *Journal of Traumatic Stress*, 8, 75–90. doi:10.1002/jts.2490080106
- Blevins, C. A., Weathers, F. W., & Witte, T. K. (2014). Dissociation and posttraumatic stress disorder: A latent profile analysis. *Journal of Traumatic Stress*, 27, 388-396.
- Bovin, M. J., Marx, B. P., Weathers, F. W., Gallagher, M. W., Rodriguez, P., Schnurr, P. P., & Keane, T. M. (under review). Psychometric properties of the PTSD checklist for DSM-5 (PCL-5) in veterans.
- Gentes, E. L., Dennis, P. A., Kimbrel, N. A., Rissling, M. B., Beckham, J. C., VA Mid-Atlantic MIRECC Workgroup, Calhoun, P. S. (2014). DSM-5 posttraumatic stress disorder: Factor structure and rate of diagnosis. *Journal of Psychiatric Research*, 59, 60-67.
- Gray, M. J., Litz, B. T., Hsu, J. L., & Lombardo, T. W. (2004). Psychometric properties of the life events checklist. *Assessment*, 11, 330–341.
- Hoge, C. W., Riviere, L. A., Wilk, J. E., Herrell, R. K., & Weathers, F. W. (2014). The prevalence of post-traumatic stress disorder (PTSD) in US combat soldiers: A head-to-head comparison of DSM-5 versus DSM-IV-TR symptom criteria with the PTSD checklist. *Lancet Psychiatry*. Advance online publication. [http://dx.doi.org/10.1016/S2215-0366\(14\)70235-4](http://dx.doi.org/10.1016/S2215-0366(14)70235-4)
- Keane, T. M., Rubin, A., Lachowicz, M., Brief, D., Enggasser, J. L., Roy, M., ... Rosenbloom, D. (2014). Temporal stability of DSM-5 posttraumatic stress disorder criteria in a problem-drinking sample. *Psychological Assessment*, 26, 1138-145. <http://dx.doi.org/10.1037/a0037133>
- Keen, S. M., Kutter, C. J., Niles, B. L., & Krinsley, K. E. (2008). Psychometric properties of PTSD checklist in sample of male veterans. *Journal of Rehabilitation Research & Development*, 45, 465-474. DOI: 10.1682/JRRD.2007.09.0138
- Kilpatrick, D. G., Resnick, H. S., Milanak, M. E., Miller, M. W., Keyes, K. M., & Friedman, M. J. (2013). National estimates of exposure to traumatic events and PTSD prevalence using DSM-IV and DSM-5 criteria. *Journal of Traumatic Stress*, 26, 537-547.

References

- Miller, M. W., Wolf, E. J., & Keane, T. M. (2014). Posttraumatic stress disorder in DSM-5: New criteria and controversies. *Clinical Psychology Science and Practice*, 21, 208-220.
- Prins, A., Jenkins-Guarnieri, M., Smolenski, D., et al. (November, 2014). Revising the PC-PTSD screen for DSM-5. Paper presented at the 30th annual meeting of the International Society for Traumatic Stress Studies, Miami, FL
- Prins, A., Ouimette, P., Kimerling, R., et al. (2003). The primary care PTSD screen (PC-PTSD): Development and operating characteristics. *International Journal of Psychiatry in Clinical Practice*, 9(1), 9-14.
- Steuwe, C., Lanius, R. A., & Frewen, P. A. (2012). Evidence for a dissociative subtype of PTSD by latent profile and confirmatory factor analysis in a civilian sample. *Depression and Anxiety*, 29, 689-700.
- Tsai, J., Armour, C., Southwick, S. M., & Pietrzak, R. H. (2015). Dissociative subtype of DSM-5 posttraumatic stress disorder in U.S. veterans. *Journal of Psychiatric Research*, 1-8.
- Weathers, F. W., Blake, D. D., Schnurr, P. P., Kaloupek, D. G., Marx, B. P., & Keane, T. M. (2013). *Clinician-Administered PTSD Scale for DSM-5 (CAPS-5)*. Boston, MA: National Center for PTSD.
- Weathers, F.W., Blake, D.D., Schnurr, P.P., et al. (2013). The Life Events Checklist for DSM-5 (LEC-5) [Measurement Instrument]. Retrieved from the National Center for PTSD website.
- Weathers, F. W., Litz, B. T., Herman, D. S., Huska, J. A., & Keane, T. M. (1993, October). The PTSD Checklist: Reliability, validity, and diagnostic utility. Paper presented at the annual meeting of ISTSS, San Antonio, CA.
- Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). *The PTSD Checklist for DSM-5 (PCL-5)*. Boston, MA: National Center for PTSD.
- Wolf, E. J., Lunney, C. A., Miller, M. W., Resick, P. A., Friedman, M. J., & Schnurr, P. P. (2012). The dissociative subtype of PTSD: A replication and extension. *Depression and Anxiety*, 29, 679–688. doi:10.1002/da.21946
- Wolf, E. J., Miller, M. M., Reardon, A. F., Ryabchenko, K. A., Castillo, D., & Freund, R. (2012). A latent class analysis of dissociation and posttraumatic stress disorder: Evidence for a dissociative subtype. *Archives of General Psychiatry*, 69, 698–705. doi:10.1001/archgenpsychiatry.2011.1574

Thank You!

Questions?

Contact Information: Dr. Michelle Bovin

Michelle.Bovin@va.gov