

# **Assessing and Reducing Violence Risk in Veterans with PTSD**

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# Polling Question #1

What percentage of military service members and veterans do you think report engaging in violence or aggression toward others in a one year period?

- A. <10%
- B. 10-20%
- C. 20-30%
- D. 30-40%
- E. 40-50%
- F. >50%

# Frequency of Violence in Veterans

- Research indicates aggression toward others is a significant problem reported by up to one-third of military service members and veterans (Jakupcak et al., 2007; Killgore et al., 2008; Sayer et al., 2010; Thomas et al., 2010).
- As such, violence is a problem for a subset of veterans.

# Frequency of Violence in Veterans

- National random sample survey of veterans who served in the military since 9/11/01 (Elbogen et al., 2012a).
  - 32% reported incidents of physical aggression to others in a one year period.
  - 11% reported incidents of severe or lethal violence in one year period of time.

# Frequency of Violence in Veterans

- A review of violence in military service personnel and veterans in the U.S. and U.K. yielded estimates of 10% for physical assault and 29% for all types of physical aggression in the last month (MacManus et al., 2015).
- Increasing need to improve ability to detect military service members and veterans at highest risk of violence to others.

# Exercise

List three factors you think place military veterans at higher risk of engaging in physical aggression toward others:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

## Polling Question #2

What risk factor do you think is the strongest predictor of violence among military service members and veterans?

- A. Younger Age
- B. Posttraumatic Stress Disorder (PTSD)
- C. Traumatic Brain Injury (TBI)
- D. Male Gender
- E. Combat Exposure
- F. Financial Instability

# Risk Factors in Veteran Populations

- Younger age
- Past violent behavior
- Child Abuse/Maltreatment
- Combat Exposure
- Meets PTSD Criteria
- Substance Abuse
- Major Depression
- Financial/Work Status

# Risk Factors in Veteran Populations

- Although some risk factors relate to military service, many risk factors in veterans overlap with those for non-veterans such as younger age and history of violence.
- One exception is gender, which has not shown to be related to violence in military and veteran populations.
- Some factors not consistently shown to be related to violence (e.g., traumatic brain injury).

# Risk Factors in Veteran Populations

- New research has identified that some veterans may be at risk of harm to self and others (Watkins et al., 2017; Calhoun et al., 2017; Elbogen et al., 2017).
- A number of the empirical studies on risk factors in Veteran populations are retrospective and measure violence by self-report; thus, there are limitations to current literature.

# Improving Risk Assessment

## Tip #1

To improve risk assessment in practice, review risk factors for violent behavior in veteran and military populations that have empirical support .

# PTSD and Violence in Veterans

- **The National Vietnam Veterans Readjustment Study (NVVRS) is one of the first large nationally representative surveys of military veterans.**
- **The NVVRS found that 33% of male Vietnam Veterans with PTSD reported intimate partner violence (IPV) during the previous year, compared to 13.5% without PTSD. (Kulka et al., 1990)**

# PTSD and Violence in Veterans

- More recently, a large national cohort sample of UK military personnel (active duty and Veteran) linked clinical data to criminal records (MacManus et al., 2013).
- Among those meeting criteria for PTSD, 7.2% had been arrested for violent offending as compared to 3% in those not meeting criteria for PTSD.

# Severe Violence in Next Year

**PTSD**

**Yes = 19.52%**

**No = 6.41%**

# Severe Violence in Next Year

Alcohol  
Misuse

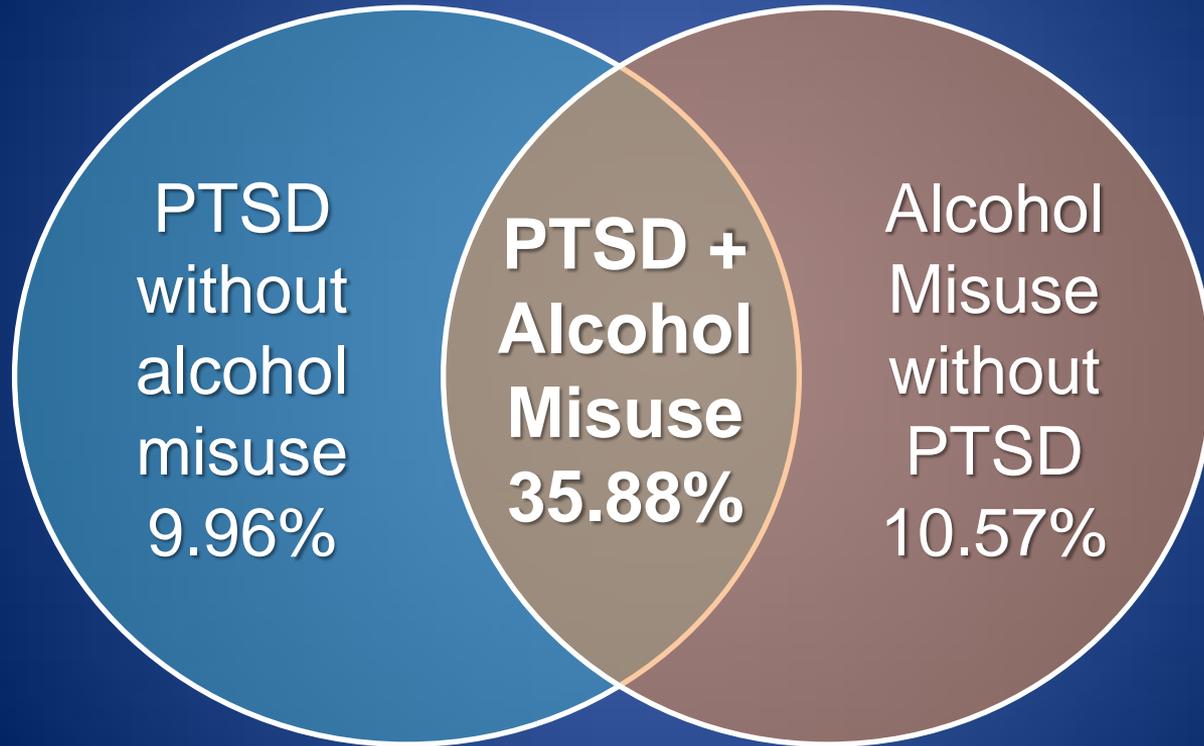
Yes = 17.43%

No = 5.97%

# Severe Violence in Next Year



# Severe Violence in Next Year



No PTSD or alcohol misuse = 5.27%

# PTSD, Symptoms, and Aggression

- Aggression associated with PTSD hyperarousal symptoms (Savarese et al., 2001; Taft et al., 2007):
  - sleep problems
  - difficulty concentrating
  - irritability
  - jumpiness
  - being on guard
- A few studies show link between re-experiencing and violence (Sullivan et al., 2014; Watkins et al., 2017).

# PTSD, Anger, and Violence

- Novaco and Chemtob (2015) found that PTSD without anger was not associated with violence in combat veterans whereas PTSD with anger was significantly related to violence.
- A national study (Sippel et al, 2016) found the majority of veterans (61.2%) reported experiencing difficulties controlling anger, many (23.9%) reported experiencing aggressive urges over a two-year period.

# PTSD, Suicide, and Violence

- Watkins et al. (2017) found greater PTSD symptoms, specifically re-experiencing, and alcohol misuse symptoms, related to co-occurring aggression and suicide.
- Calhoun et al. (2017) found nonsuicidal self-injury was significantly associated with interpersonal violence in veterans with PTSD.
- Elbogen et al. (2017) found concurrent suicidal ideation and violent impulses were linked to PTSD, childhood abuse, drug misuse, and pain symptoms.

# Improving Risk Assessment

## Tip #2

To improve risk assessment in practice, understand the role of PTSD may play while identifying possible concurrent factors related to violent behavior by veterans.

# Violence & Psychosocial Well-Being

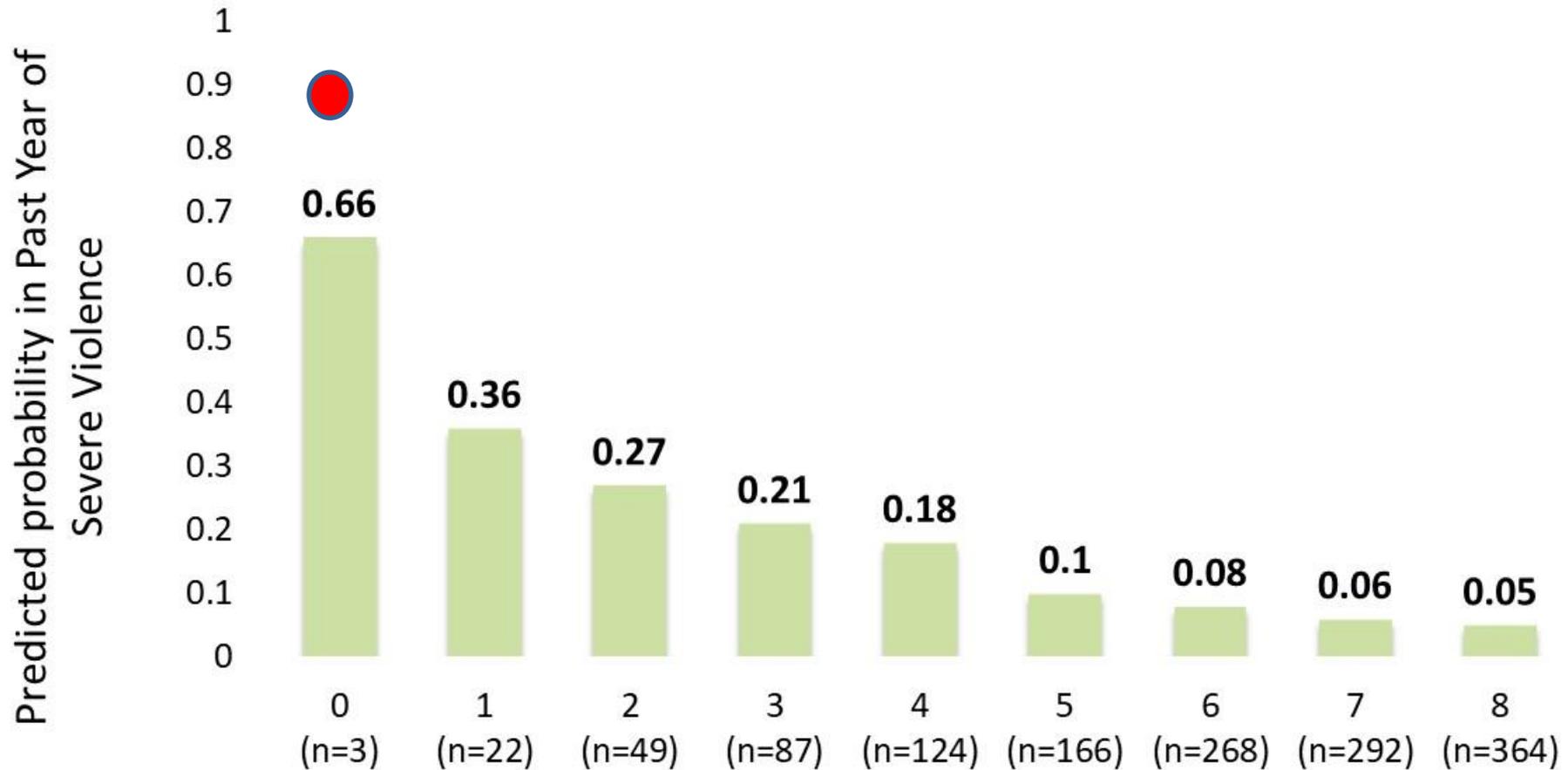
| Protective Factor            |                             | n           | Severe<br>Violence n | Severe<br>Violence% | Chi-Square   | p-value          |
|------------------------------|-----------------------------|-------------|----------------------|---------------------|--------------|------------------|
| <b>Work</b>                  |                             |             |                      |                     |              |                  |
| Yes                          |                             | <b>862</b>  | <b>77</b>            | <b>8.96</b>         | <b>13.43</b> | <b>0.0002</b>    |
| No                           |                             | <b>239</b>  | <b>41</b>            | <b>17.25</b>        |              |                  |
| <b>Basic Needs Met</b>       |                             |             |                      |                     |              |                  |
| Yes                          |                             | <b>646</b>  | <b>47</b>            | <b>7.33</b>         | <b>19.29</b> | <b>&lt;.0001</b> |
| No                           |                             | <b>455</b>  | <b>71</b>            | <b>15.65</b>        |              |                  |
| <b>Self-Care</b>             |                             |             |                      |                     |              |                  |
| No                           |                             | <b>114</b>  | <b>23</b>            | <b>23.14</b>        | <b>20.27</b> | <b>&lt;.0001</b> |
| Yes                          |                             | <b>988</b>  | <b>92</b>            | <b>9.34</b>         |              |                  |
| <b>Homeless in Past Year</b> |                             |             |                      |                     |              |                  |
| No                           |                             | <b>1051</b> | <b>100</b>           | <b>9.52</b>         | <b>36.87</b> | <b>&lt;.0001</b> |
| Yes                          | <i>Elbogen et al., 2012</i> | <b>50</b>   | <b>18</b>            | <b>36.60</b>        |              |                  |

# Violence & Psychosocial Well-Being

| Protective Factor         |                      | n          | Severe Violence n | Severe Violence % | Chi-Square   | p-value          |
|---------------------------|----------------------|------------|-------------------|-------------------|--------------|------------------|
| <b>Resilience</b>         |                      |            |                   |                   |              |                  |
|                           | <b>Above Median</b>  | <b>562</b> | <b>45</b>         | <b>8.10</b>       | <b>8.49</b>  | <b>0.0036</b>    |
|                           | <b>Below Median</b>  | <b>538</b> | <b>73</b>         | <b>13.55</b>      |              |                  |
| <b>Self-Determination</b> |                      |            |                   |                   |              |                  |
|                           | <b>Satisfied</b>     | <b>926</b> | <b>77</b>         | <b>8.33</b>       | <b>35.87</b> | <b>&lt;.0001</b> |
|                           | <b>Not Satisfied</b> | <b>176</b> | <b>42</b>         | <b>23.60</b>      |              |                  |
| <b>Spiritual Faith</b>    |                      |            |                   |                   |              |                  |
|                           | <b>Satisfied</b>     | <b>881</b> | <b>82</b>         | <b>9.3</b>        | <b>9.97</b>  | <b>.0016</b>     |
|                           | <b>Not Satisfied</b> | <b>220</b> | <b>37</b>         | <b>16.7</b>       |              |                  |
| <b>Social Support</b>     |                      |            |                   |                   |              |                  |
|                           | <b>Satisfied</b>     | <b>654</b> | <b>46</b>         | <b>7.06</b>       | <b>23.04</b> | <b>&lt;.0001</b> |
|                           | <b>Not Satisfied</b> | <b>447</b> | <b>72</b>         | <b>16.19</b>      |              |                  |

*Elbogen et al., 2012*

# Protective Factors



# Improving Risk Assessment

## Tip #3

To improve risk assessment in practice, identify protective factors in order to manage, and potentially lower, risk of violence in veteran and military populations.

## Polling Question #3

When left to their own clinical judgment, how good are mental health professionals at predicting violent behavior?

- A. Much worse than chance
- B. Slightly worse than chance
- C. Same as chance (flipping a coin)
- D. Slightly better than chance
- E. Much better than chance

# Violence Risk Assessment

- Clinicians slightly better than chance at assessing risk of violence (Mossman, 1994).
- To reduce errors and improve risk assessment, clinicians can make decision-making more systematic, using decision-aides (Monahan & Steadman, 1994; Douglas et al., 1999)
  - To ensure all important information is gathered in the course of diagnosis & treatment.
  - To reduce chances of overlooking critical data in time-pressured clinical practice.

# Approaches to Assessing Violence Risk

- **Clinical Judgment** – reliance on intuition of an individual's risk of violence
  - shown to be only a little better than chance, prone to decision-making errors.
- **Actuarial Models** – combination of factors to statistically optimize assessment
  - can miss relevant information, limited accuracy for findings pointing to high risk.

# Approaches to Assessing Violence Risk

**Structured Professional Judgment model to assess for violence risk:**

- Systematic approach to reduce clinical decision-making errors.**
- Prompts review of risk and protective factors with scientific and empirical support.**
- Points to dynamic and changeable factors that can inform interventions to reduce violence.**

# Violence Risk Assessment

|                                 |            |
|---------------------------------|------------|
| Flipping a Coin                 | -> AUC=.50 |
| Clinical Decision-making        | -> AUC=.66 |
| History of Violence             | -> AUC=.71 |
| Psychopathy Checklist           | -> AUC=.75 |
| Violence Risk Appraisal Guide   | -> AUC=.76 |
| HCR-20                          | -> AUC=.80 |
| MacArthur Risk Assessment Study | -> AUC=.82 |
| Perfect Accuracy                | -> AUC=1.0 |

# Improving Risk Assessment

## Tip #4

To improve risk assessment in practice, review risk factors in a systematic and structured way to make sure you review key information in your evaluation.

# Violence Screening & Assessment of Needs (VIO-SCAN)



| Domain   | Item  |
|--|---|
| <b>Financial Instability</b>  | <b>Do you generally have enough money each month to cover food, clothing, housing, medical care, transportation, and social activities?</b>     |
| <b>Combat Experience</b>      | <b>Did you personally witness someone (from your unit, an ally unit, or enemy troops) being seriously wounded or killed?</b>                    |
| <b>Alcohol Misuse</b>         | <b>Has a relative or friend, or a doctor or other health worker, been concerned about your drinking [alcohol] or suggested you cut down?</b>    |
| <b>Violence / Arrests</b>     | <b>Have you ever been violent toward others or arrested for a crime?</b><br>(Excludes controlled aggression conducted while deployed in combat) |
| <b>PTSD + Anger</b>           | <b>In the past week, how many times have you been irritable or had outbursts of anger? (≥ 4 times + PTSD)</b>                                   |

# Interpreting Individual Items

- **Endorsement of an item should prompt more detailed investigation of the risk factor and its relationship to violence.**
  - **For example, if a veteran endorses history of violence, clinicians should examine type, severity, frequency, and recency of violence.**
  - **If any of the basic needs are not being met, clinicians should evaluate whether this is connected to violence or aggression.**

# Interpreting Multiple Items

- **Combinations of endorsed risk factors should also be examined.**
- **Research has shown, for example, that co-occurring PTSD and alcohol misuse have a strong association with violence in veterans.**
- **Each of the basic needs such be examined with respect to their potential link to risk factors (e.g., homelessness and criminal justice involvement).**

# VIO-SCAN

- The VIO-SCAN should never be used alone and does not replace comprehensive risk assessment or designate low, medium, or high risk.
- Many risk factors will not always mean high risk of violence and endorsement of few risk factors will not always mean low risk of violence.
- Developed in Iraq/Afghanistan era Veterans but uses risk factors with empirical support from all eras.
- Study measured one year outcomes, not validated for short-term, acute violence risk.

# VIO-SCAN

- 1) Prompt clinicians to consider at least five empirically supported risk factors.**
- 2) Identify veterans who may be at higher risk of violence.**
- 3) Review needs and dynamic, protective factors to develop a plan to reduce risk.**
- 4) Encourage clinical consideration of concurrent factors relevant to violence risk.**

# **Synthesizing Risk and Protective Factors into a Safety Plan**

- Under what circumstances is this veteran at highest risk of violence?**
- How can this veteran lower risk by reducing dynamic risk factors or increasing protective factors?**
- What are this veteran's perceptions about his or her lowering risk?**
- What level of engagement does he or she have in developing a safety plan?**

# Improving Risk Assessment

## Tip #5

- To improve risk assessment in practice, use violence risk assessment instruments with empirical support to complement, not replace, your clinical evaluation of a veteran's risk of violence while including veterans' input into the safety planning process.

# Recap: A Subset of Military Veterans Report Violence

- Findings reveal a subgroup of military service members and veterans who report recent serious violence such as use of a weapon or beating another person (11%) in a one-year time frame.
- In the same period, a higher number report less severe physically aggressive incidents such as shoving or pushing others (32%).

# Recap: Link between PTSD and Violence in Veterans is Complex

- Although most veterans with PTSD report no violence or problems with aggression, PTSD in veterans is associated with a higher rate of violence.
- Concurrent factors need to be considered; for example, veterans with PTSD and alcohol misuse at markedly higher rates of violence.
- Specific PTSD symptoms, including anger and other hyperarousal symptoms, have also been related to increased risk of violence in veterans.

# Recap: Non-Military Related Risk Factors Need to be Considered

- Risk factors have been related to violence and aggression in veterans, just as in non-veteran populations:
  - Demographics (e.g., younger age)
  - Criminality (e.g., history of violence)
  - Clinical (e.g. substance abuse)
  - Economic attainment (e.g., meeting basic needs)

# Recap: Protective Factors Inform Safety Plans to Manage Risk

- Protective factors have been found to be associated with reduced odds of violence in veterans.
- Psychosocial rehabilitation approaches could be used to manage and potentially reduce violence risk domains of:
  - basic functioning (living, financial, vocational)
  - well-being (social, psychological, spiritual)

# **Recap: Risk Assessment Tools Help Structure Clinical Decision-Making**

## **Violence Risk Assessment Instruments:**

- Guide clinicians through a systematic process of reviewing risk and protective factors.**
- Structure clinical evaluations so that risk and protective factors with empirical support are reviewed and not missed.**

# **Recap: Risk Assessment Tools Help Structure Clinical Decision-Making**

## **Violence Risk Assessment Instruments:**

- Do not replace clinical decision-making which may involve the need to gather information on factors not contained in the tool.**
- Outline steps for developing a safety plan with the input of the veteran assessed.**

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