

Assessing and Managing Violence Risk Among Iraq and Afghanistan Veterans

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Supported by a research grant from the National Institute of Mental Health (R01MH080988)

VIOLENCE IN Veterans

- Media accounts highlight challenges Veterans face in their transition back to civilian life, resulting sometimes in anger & aggression.
- Recent studies indicate aggression toward others is a significant problem reported by up to one-third of Iraq & Afghanistan War Veterans.

Findings from VISN6 MIRECC

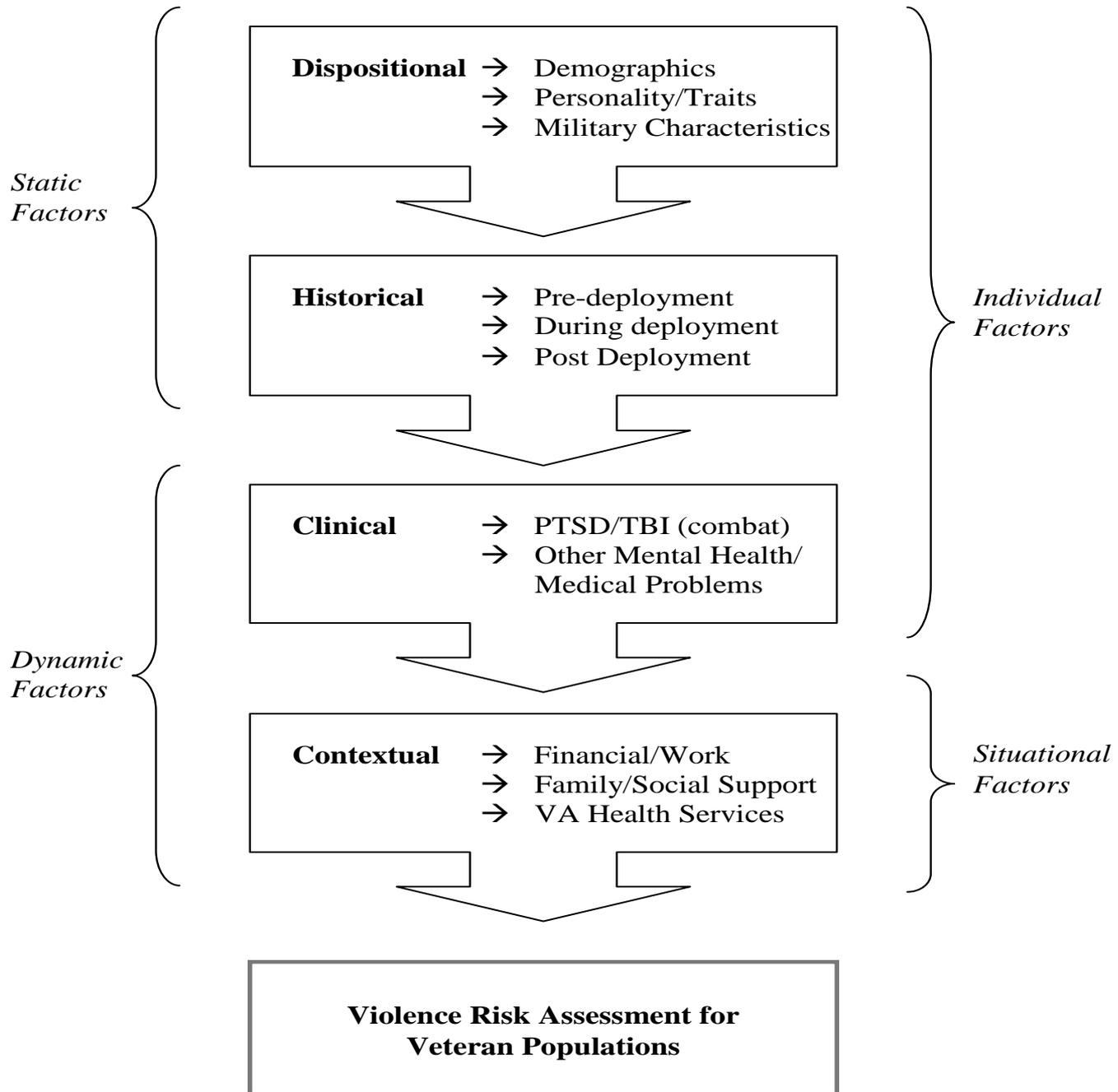
- ✘ Post-deployment aggressiveness was associated with Posttraumatic Stress Disorder (PTSD) hyperarousal symptoms:
 - ✘ sleep problems
 - ✘ difficulty concentrating
 - ✘ irritability
 - ✘ jumpiness
 - ✘ being on guard
- ✘ Other PTSD symptoms, as well as TBI, were *less consistently connected.*

Findings from VISN6 MIRECC

- Different Types of Aggressiveness related to Different Factors:
 - Problems Managing Anger linked to *relationships*, (e.g., being married).
 - Aggressive Impulses/Urges linked to *mental health* (e.g., family mental illness).
 - Problems Controlling Violence linked to *violence exposure* (e.g., witnessing violence, firing weapon).

Risk Assessment

- Clinicians perform only modestly better than chance when assessing violence.
- Increasing need to improve ability to detect Veterans at highest risk.
- To do so, clinicians should examine empirically-supported risk factors and use structured decision-aides or tools.



Risk Factors in Veterans

Risk Domain	Risk Factors for Intimate Partner/ Domestic Violence	Related to Both Types of Violence	Risk Factors for General Interpersonal Violence
Dispositional	Younger age	✓	Younger age
			Lower education level
Historical	Past violent behavior	✓	Past violent behavior
	Combat Exposure (atrocities, perceived threat)	✓	Combat Exposure (killing/seeing killings)
	Chaotic family life growing up		Witnessed violence growing up
	Maltreatment/Abuse as a Child	✓	Abuse/maltreatment as a child

Risk Factors in Veterans

Risk Domain	Risk Factors for Intimate Partner/ Domestic Violence	Related to Both Types of Violence	Risk Factors for General Interpersonal Violence
Clinical	Meets criteria for PTSD	✓	Meets criteria for PTSD
	Severe PTSD Symptoms	✓	Severe PTSD Symptoms
	Substance abuse	✓	Substance abuse
	Depression	✓	Depression
	Personality Disorder		Traumatic Brain Injury (TBI)
			Higher levels of anger
Contextual	Financial Status (Unemployment)	✓	Financial Status (Lower Socio-Economic Status & income)
	Marital/relationship problems		
	Shorter/newer marriages		
	Children in the home		

National OEF/OIF VETERANS STUDy

- May 2009, a random sample of 3000 names / addresses drawn by the VA Environmental Epidemiological Service of the over one million U.S. active duty & military reservists who served in military on or after September 11, 2001.
- In total, N=1388 OEF/OIF military service members completed a web-based survey on post-deployment adjustment, representing a 56% corrected response rate.

National OEF/OIF VETERANS STUDy

- The resulting sample included Iraq & Afghanistan War military service members & / or Veterans from all branches of the military & the reserves.
- Participants resided in all 50 states, Washington D.C., & four territories.
- Responders were similar to non-responders in age, gender, & geographic region.

Independent Variables

- Demographics. education, age, gender, race, income.
- Historical. witnessing family violence, physically punished as child, history arrest (veteran/family).
- Military. rank, NDHS combat experiences, length and number of deployments.
- Clinical Diagnosis. PTSD (Davidson Trauma Scale), alcohol misuse (AUDIT), Traumatic Brain Injury (TBI), major depression (PHQ9).
- Functional Domains. work, homelessness, ability to pay for basic needs, back pain, sleep problems, resilience (CD-RISC), social support.

Dependent Variables

- Severe Violence (past year)
 - *Conflict Tactics Scale*: “Used a knife or gun”, “Beat up the other person”, or “Threatened the other person with a knife or gun”
 - *MacArthur Community Violence Scale*: “Did you threaten anyone with a gun or knife or other lethal weapon in your hand?”, “Did you use a knife or fire a gun at anyone?”, “Did you try to physically force anyone to have sex against his or her will?”
- Physical Aggression (past year)
 - Other items indicating physical aggression including kicking, slapping, & using fists.

Demographic Data

- We oversampled women Veterans (33%) & weighted analyses according to actual military figures (12%).
- Average age - 33 years.
- Slightly less than one-half reported post-high school education (45%).
- 70% were Caucasian.
- 78% reported some current employment.

Historical / Military Data

- 7% reported witnessing parental violence.
- 10% reported a history of arrest before deployment.
- 16% ranked officer or higher.
- 27% reported spending more than a year in Iraq/Afghanistan.
- 27% reported more than one deployment.
- Average time since deployment 4.5 years.

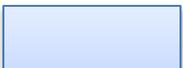
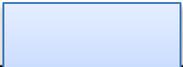
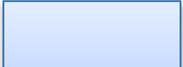
Clinical / Contextual Data

- 20% met criteria for PTSD on the Davidson Trauma Scale.
- 15% reported Mild Traumatic Brain Injury.
- 2% reported moderate to severe TBI.
- 27% met criteria for alcohol misuse.
- 24% met criteria for major depressive disorder.

Violence / Aggression

- ✘ 11% reported incidents of severe violence in the past year.
- ✘ 32% reported incidents of less severe physical aggression in the past year.
- ✘ Bivariate analyses indicates both linked to:
 - + Younger Age
 - + Combat Involvement
 - + Depression
 - + Alcohol Misuse
 - + PTSD
 - + mTBI
 - + Arrest History

VIOLENCE and Functioning

	<i>n</i>	Violent <i>n</i>	%	χ^2	p-value
<i>Domains</i>					
Sleep Problems					
No	796	60		30.28	<.0001
Yes	305	58			
Basic Needs Met					
Yes	646	47		19.29	<.0001
No	455	71			
Resilience					
Above Median	562	45		8.49	0.0036
Below Median	538	73			
Social Support					
Satisfied	654	46		23.04	<.0001
Not Satisfied	447	72			

VIOLENCE and functioning

	<i>n</i>	Violent <i>n</i>	%	χ^2	p-value
<i>Domains</i>					
Back Pain					
No	659	49		18.45	<.0001
Yes	442	69			
Homeless Past Year					
No	1051	100		36.87	<.0001
Yes	50	18			
Work Past Year					
Yes	862	77		13.43	0.0002
No	239	41			

Multivariate: SEVERE VIOLENCE

	<i>OR</i>	<i>CI</i>	<i>p</i>
Age	1.647	0.928–0.985	0.003
Sex	0.956	0.819–3.309	0.161
Race	0.699	0.447–1.093	0.116
Physical & Mental Injury/Distress¹	2.754	1.671–4.539	<.001
Economic & Social Attainment²	0.8	0.628–1.019	0.070
Combat Exposure³	1.467	0.935–2.301	0.095
Family Violence/Criminal History⁴	1.359	0.668–2.761	0.397
Risky Behaviors / Environment⁵	2.941	1.681–5.148	<.001
Support and Resilience⁶	0.896	0.556–1.445	0.653

$R^2=.21$, $AUC=.81$, $\chi^2= 124.52$, $df=9$, $p<.0001$

Cluster 1: PTSD, Depression, Sleep, Back Pain, mTBI;

Cluster 2: Education, Income, Married, Money to Cover Basic Needs, Reserves, Ran>Officer, Employed;

Cluster 3: Multiple Deployments, Over a Year Deployed, NDHS Combat Exposure Scale>median;

Cluster 4: History of Witnessing Family Violence, Physical Punishment, Parental Criminal Arrest History;

Cluster 5: History of Criminal Arrest, Homelessness, Alcohol/Drug Misuse;

Cluster 6: CD RISC score>median, QLI scored satisfied with family/friend support)

Multivariate: OTHER Aggression

	<i>OR</i>	<i>CI</i>	<i>P</i>
Age	0.971	0.955–0.988	0.0007
Sex	0.872	0.584–1.3	0.5005
Race	0.882	0.644–1.206	0.4302
Physical & Mental Injury/Distress¹	1.976	1.377–2.834	0.0002
Economic & Social Attainment²	0.841	0.714–0.99	0.0373
Combat Exposure³	1.511	1.102–2.074	0.0105
Family Violence/Criminal History⁴	1.359	0.816–2.264	0.239
Risky Behaviors / Environment⁵	2.39	1.533–3.726	0.0001
Support and Resilience⁶	0.527	0.388–0.718	<.0001

$R^2=.20$, $AUC=.75$, $\chi^2= 184.27$, $df=9$, $p<.0001$

Cluster 1: PTSD, Depression, Sleep, Back Pain, mTBI;

Cluster 2: Education, Income, Married, Money to Cover Basic Needs, Reserves, Ran>Officer, Employed;

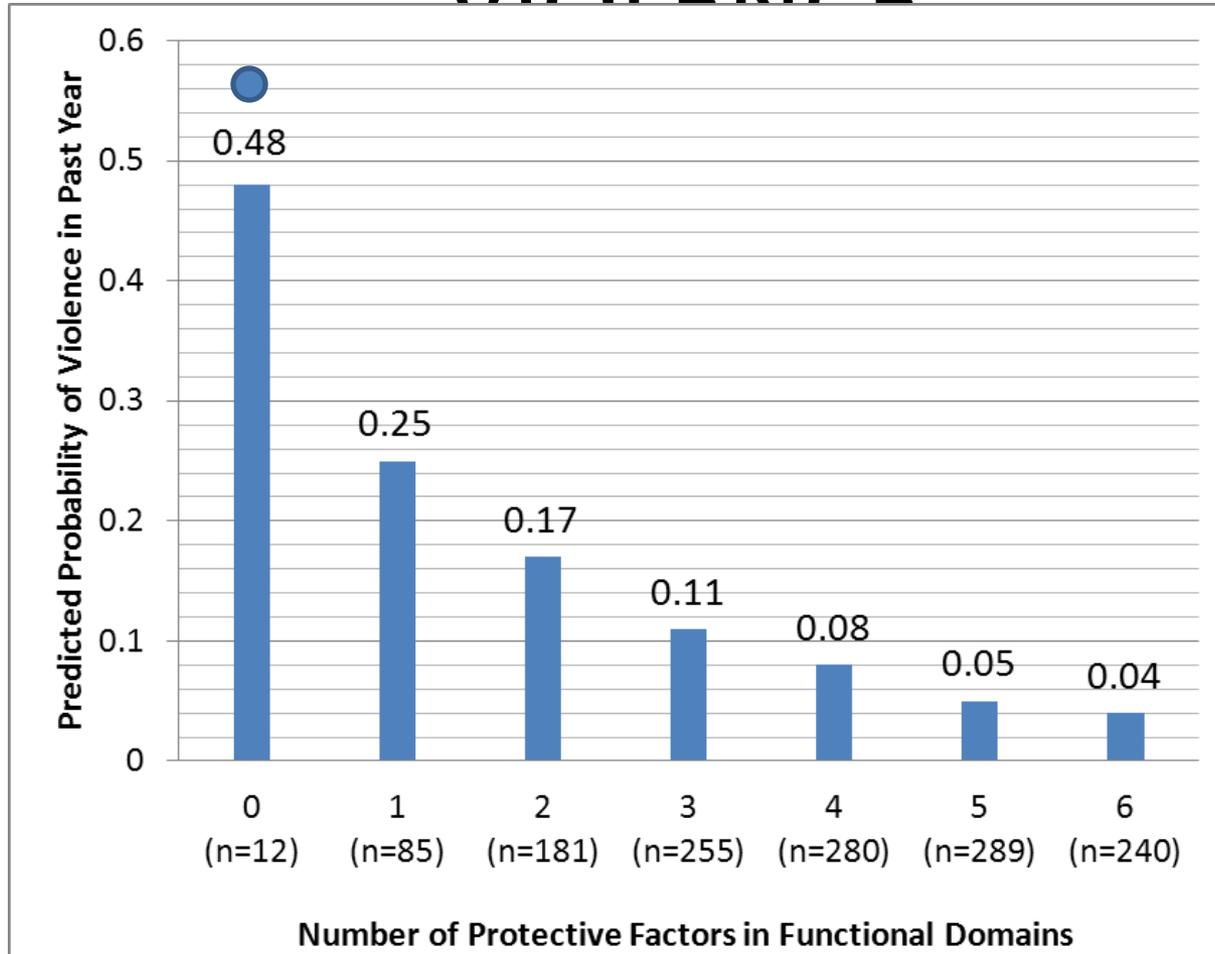
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PREDICTED Probability of VIOLENCE



Protective factors connote adaptive levels of functioning in the following domains: living, work, financial, psychological, physical, social.

Discussion

- Findings reveal a subgroup of Veterans who report recent serious violence such as use of a weapon or beating another person (11%); however, a higher number of Veterans report physically aggressive incidents such as shoving or pushing others (32%).
- Factors related to violence among Veterans from previous eras and wars — age, alcohol misuse, PTSD, depression, homelessness— had significant empirical association among Iraq and Afghanistan Veterans.

Discussion

- Not related to violence or aggression in either multivariate model: ethnicity, gender, historical information.
- In addition to treating mental health and substance abuse problems, promising rehabilitation approaches to reduce violence risk would target domains of:
 - basic functioning (living, financial, vocational)
 - well-being (social, psychological, physical)