



Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) Webinar Series

June 25, 2015, 1-2:30 p.m. (ET)

“Assessing and Reducing Violence in Military Veterans”

Good afternoon, and thank you for joining us today for the DCoE Psychological Health June Webinar. My name is Dr. Vladimir Nacev, and I'm a senior clinical psychologist and program manager for the Deployment Health Clinical Center. I will be your moderator for today's webinar.

Before we begin, let us review some webinar details. Live closed captioning is available through Federal Relay Conference Captioning. Please see the pod beneath the presentation slides. Should you experience technical difficulties, please visit dcoe.mil/webinars and click on the troubleshooting link under the monthly webinars (inaudible).

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I will now move to today's webinar topic, "Assessing and Reducing Violence In Military Veterans." Research shows that up to one-third of military service members and veterans report engaging in violence or aggression toward other, highlighting the need to improve violence risk assessment. Providers have a unique opportunity to identify, treat, and refer patients who may be at high risk.

The discussion today will review the complex link between post-traumatic stress disorder and violent behavior in military population, particularly when combined with alcohol misuse. The session will also address important non-PTSD risk factors and protective factors associated with reduced risk of violence.

The presenter will outline a systematic structured process for assessing and reducing violence and risk in clinical practice. During this webinar participant will learn to; one, conceptualize the process of violence risk assessment in service member veterans; two, review up-to-date scientific literature on post-deployment aggression; three, integrate new data on aggression in service members and veterans from a national sample; and, four, discuss how rehabilitation can help reduce aggression in veterans.

I would now like to introduce our presenter, Dr. Eric Elbogen. Dr. Elbogen is a forensic psychologist who has conducted both clinical work and internal research at the intersection of law and mental health services, with a particular focus on veterans. Dr. Elbogen is currently principle investigator on a National Institute of Mental Health research project grant program, examining the effects of PTSD and TBI on violence and aggression among Afghanistan and Iraq veterans.

He's also the principal investigator of DCoE-funded project investigating improving capacity among veterans with psychiatric disabilities, and a Department of Defense funded randomized clinical trial on positive rehabilitation intervention to improve executive function in veterans with PTSD and TBI.

In terms of clinical work, Dr. Elbogen currently provides forensic and neuropsychiatric assessments at Central Regional Hospital in Butner, North Carolina, in addition to forensic neuropsychological intelligence and intelligence and personality testing through the University of North Carolina Forensic Psychiatry Program and Clinic. Welcome, Dr. Elbogen.

Thank you very much. Thank you for attending this webinar. Today we're going to be talking about what the research says about reducing and assessing violence risk in military veterans, service members, and hoping that that research, you'll be able to transfer that to your clinical practice when and if you encounter veterans who have complaints of anger problems or is at risk or might be at risk of violence, and to try to figure out ways and methods to improve your clinical practice of assessment and management of that risk.

As you see here, I have no relevant financial relationships to disclose, and my views don't necessarily reflect the Department of Veterans Affairs or the Department of (inaudible) or the U.S. Government.

Now this question was just answered a few minutes ago, so this is going to be a good question to see how you were paying attention. But imagine that you had a thousand people randomly selected from all Iraq Afghanistan veterans and you asked them, "In the last year, have you been aggressive or violent?" Of those thousand people, what percentage of them do you think would report engaging in violence in a one-year period of time?

So right now we're doing a poll of you, and we're getting answers coming in. We'll wait a minute until that's complete. What percent you think would answer yes to that? Still coming in. We're going to stop in about ten seconds. And here are the results. You'll be able to view the votes -- the results right now. So you can see that it almost forms a perfect bell-shaped curve, but there's tremendous availabilities in the answers.

The correct answer is one-third. So research has shown that up to one-third of military service members or veterans report engaging in some kind of aggressive act towards others in a one-year period of time. That's been shown in many studies. And I think the best -- if there's going to be a take home from this talk in the next hour-and-a-half, we're talking about a subset of military veterans. We're talking about the vast majority veterans and military members do not have this as a problem, do not have problems with aggression It's not a problems. We're talking about a subset.

We actually had the opportunity to get a random sample of a thousand people, just like I presented to you a second ago, and we found that 32% of Iraq/Afghanistan veterans in this national sample did report incidence of physical aggression against others in a one-year period of time. Really important to realize, though, that that can be defined many different ways, and when you talk about severe aggression, it was about one in ten reported severe aggression. We're talking about violence towards others that would potentially lead to severe harm, or at least violence, like use of a weapon, a gun, a knife. So one in ten.

A recent analysis of this data, both from the United States and UK have found that it's a 10% rate of any kind of difficult, you know, one-month period of time, and 29% for all kinds of physical aggression. Some of those may be including anger and aggression in a one-month period of time. Those are higher rates than we've gotten in the United States, but, again, you have to look at how physical assault is being assessed and measured. Regardless of whether the numbers are a third in a year period of time, 10% in

a month period of time, there is an increasing need to detect whether or not a veteran is going to be at risk of harming another person.

So what are the ways that you can improve your clinical practice of assessing veterans and military service members to look at the fact that in the past 20 years there's been a tremendous amount of research done in the civilian sector on improving violence risk assessment. And so what I'm going to do for the next 40 minutes is look at how we could apply that science of violence risk assessment in the civilian literature to improve your clinical practice of violence risk assessments for military veterans and military service members.

So we're going to go over a few rules of conduct. The first is, if you're going to be assessing violence risks, then at a minimum, you would want to look at, well what are the risk factors that have been shown to be scientifically linked to violent behavior in military populations. So we have a polling question next, an open-ended polling question, which -- but we'll use this closed-ended question. Which do you think is the strongest predictor of violence among military service members and veterans? So doing the poll. And still coming in, a few more. You have about ten more seconds. Okay. Here are the results.

So there's a little trick in this question. I do this intentionally. So there is not actually a correct answer to this question. Some of those factors have not been consistently related. Some of them have. But I think one of the reasons I put this question up that way is to make -- we as clinicians sometimes begin to think that there is a strongest predictor, when there is always multiple, many different risk factors.

So let me describe to you which have and have not been shown to relate. Traumatic brain injury and male gender have not consistently been shown to relate to violence in military service members and veterans. And that's important to realize, because in the civilian population there is a pretty large gender gap in violence rates, but that has not been shown for military veterans. Younger age has consistently been shown to relate to higher rates of violence. History of the violence was the one you picked most, and that also has been shown to consistently relate. Financial instability, few people picked, but actually has been consistently shown to relate, and post-traumatic stress disorder, about 14, 15%, picked. That's the risk factor that has been shown to most consistently been associated statistically with violence and aggression in veterans, but it's also complexly related to violence, and we're going to get to that in a few minutes. So PTSD is relevant but we're going to talk about how it's relevant.

What we have here are a list of risk factors that have been shown to relate to violence in veterans populations in a number of different studies. So younger age, that has been shown to relate to violence in many different studies, and that's just very consistent. Past violent behavior; combat exposure, this one is very important. This means that four or more studies have shown a link between violence and combat exposure in veterans. However, there have been a number of studies that have not shown that link. And so overall there's actually a mixed -- there are mixed findings on whether combat exposure is associated with violence risk, et cetera. And that's on the next slide.

Chaotic family life, maltreatment as a child, very important to realize that a lot of these risk factors are, in fact, the same as for civilians. Younger age is a risk factor for violence in the civilian population, past violent behavior, and child maltreatment.

Meets criteria for PTSD, you could see that that is shown in four or more -- that's what the checkmark stands for, four or more studies have shown that meets criteria for PTSD is related to aggression, same thing with more severe PTSD symptoms, substance abuse, depression, and financial status. We've also broken them down into other domestic violence or intimate partner violence and general interpersonal violence. So, again, the check is that those risk factors relate to both types of violence. So, as a clinician, those are the factors that, at minimum, would be really important for you to look at.

Okay, so I mentioned PTSD, what's the relationship between PTSD and violence, and how do we understand it? So early on -- and this is one of the earliest surveys of this, and this is in the late 1980s -- was the NVVRS, National Vietnam Veterans Readjustment Study, and they found that the veterans --

these male Vietnam veterans who did meet criteria for PTSD had a high rate of intimate partner violence than male Vietnam veterans without.

More recently, in the UK researchers were able to link with criminal arrest records and found that both -- and this is a mixed active duty and veteran sample -- that military population among them, those who had met criteria for PTSD had twice the rate of being arrested for violent offending than those in the military population who did not meet the criteria for PTSD.

In our national random samples of all Iraq/Afghanistan veterans, we found that if a veteran met criteria for PTSD at time period one, then a year later, about 20% of them engaged in severe violence; whereas if at time period they did not meet criteria for PTSD, 6% of them in the next year engaged in severe violence. That is statistically significant. So on the surface PTSD seems to have what's called a "bivariate association," so these two variables. If you look at PTSD and violence, they seem to be associated.

What about alcohol misuse? Well sort of the same pattern. We found that if a veteran met criteria for alcohol misuse at time period one, 17.4% of them were severely violent the next year compared to not. But some you may be saying, "Well, don't they co-occur, and doesn't it matter how you slice the data?" And, indeed, it does. Because if you look at the two-thirds of veterans who had PTSD without alcohol misuse, there was no difference between their rate of severe violence and other veterans. That's not statistically significant. Alcohol misuse alone, same thing.

What about both? The combination of PTSD and alcohol misuse was associated with significantly elevated risk. And that's really important, because a third of the veterans with PTSD met criteria for alcohol misuse, and that was the subset of veterans who are at significantly higher risk. And there are theories about this. And if you think about it, you might have someone who you want to -- for violence to occur, if there's something that compels someone to act violently but stops them, they're inhibited, then that would at least be associated with reduced violence risk.

But if someone is disinhibited but there's not something to compel them to do violence, then that's also less risk. But if there's something compelling them to be violent -- let's say anger -- and there's no inhibition from alcohol misuse, then that increases the risk of violence. You have both PTSD, and, in fact, the group of veterans who had both PTSD and alcohol misuse had higher anger scores, so there's more to compel them to be angry, and then lack of inhibition would be one potential pathway regarding those two -- the combinations of those two variables. This has been replicated -- in the co-occurring PTSD and alcohol misuse has been shown in other studies to be associated with violence.

Well, so the diagnosis of PTSD alone is important, but, really, it's only the tip of the iceberg, because you really need to look at, well, what does it co-occur with. The other aspect of PTSD is there's different symptoms. So it turns out, if you look at specific types of PTSD symptoms, it's the hyper arousal or the physiological that have been most consistently shown to be related to violence risk in veterans and military service members. And this is -- you have irritability and anger, but also sleep problems, difficulty concentrating, jumpiness, being on guard. Other PTSD symptoms have less consistently been associated with violence. So you have that PTSD. You want to look at alcohol abuse. You want to look at what types of symptoms.

Let's look at anger specifically, and you can see this is whether or not a veteran was arrested after returning home in the community, so post-deployment. What you could see is, both for PTSD and for traumatic brain injury, the veterans who reported high irritability or anger or after brain injury increased irritability and anger, they were much more likely to have criminal justice involved than veterans of the same diagnosis but who did not report anger and irritability. So that's a really important finding in terms of understanding that the diagnosis alone is not enough. It needs to start going below the surface. What about the PTSD is linked to either antisocial behavior or violent behavior?

And I hope you'll be able to see this. The writing is a little small, so I apologize. But we began to look at, well what kind of violence? Maybe different PTSD symptoms are related to different kinds of violence. And what this shows, what that circle shows is that male veterans were 3.41 times more likely to engage

in stranger aggression than female veterans. So if you look at type of violence, there actually is a gender difference.

The other thing you find -- and this is the only time this has been found, so it's very important to realize that this is a finding that needs to be replicated -- we found that PTSD flashback symptoms were predictive of later stranger aggression. When it comes to family aggression, we found that women veterans were actually more likely to report family aggression than male veterans. And this has been replicated by researchers at the Boston VA. We found, though, when it comes to family aggression, that PTSD anger symptoms were the ones that most predicted family aggression.

So all this is to say, when the news media hears a report about a veteran who may have acted violently, there's this knee-jerk reaction to say it's PTSD. And the fact of the matter is PTSD is certainly relevant. But the diagnosis alone -- it's important to go beyond the diagnosis and look at what's co-occurring. What are some of the specific symptoms? What are specific types of aggression you're talking about that really gets at truer link between whether -- if your veteran has PTSD, what about that PTSD is relevant to their risk of violence, and what isn't?

So, so far, we've been talking all about risk factors. So the first rule is you want to look at risk factors that have been shown to be related to violence in the science; two, you want to look at what's the role of PTSD in your risk assessment; but, third, well, Dr. Elbogen, what do I do now that I've got a veteran who is at high risk, what can I do to reduce that risk? As a clinician I've got to come up with a plan. And so we've looked at certain protective factors that might come into play to help reduce risk of violence in military veterans.

One of the protective factors is work, employment. What you can see is that veterans who had been working were much less likely to engage in severe violence. Meeting basic needs, does a veteran have enough money to cover their food, shelter, transportation, and medical care? That's associated with reduced risk of severe violence. Does a veteran perceive that they're able to take care of themselves? You can see if they say, no, 23% of them have been severely violent. Homelessness in the past year. Now you can see there's not a lot of veterans who have been homeless in the last year, about 5% of the sample. But you can see that of that 5%, nearly 36% of them reported severe violence in that year, and that's very significant. So living facility needs to be considered.

Resilience, there's been a lot of talk about resilience. We measured it with the Connor-Davidson Resilience Scale and found that, indeed, veterans who do report having a better ability to cope with stress, having a support network, being able to problem solve and have a sense of control and purpose in their lives are less likely to be severely violent. Control; someone's self-determination was one of the strongest protective factors that we found. Just asking a veteran, "Do you feel in control of your future?" The veterans that answered -- that were satisfied with their level of self-determination were significantly less likely to be violent and severely violent than those who were not satisfied. So self determination, control of one's own destiny is very important.

Spiritual faith also has a varied association with severe violence and social support. Being more satisfied with one's social support network associated with reduced percentage of severe violence.

So I'm going to show you -- I'm going to explain to you what this figure is. What this denotes is the number of protective factors that veterans had. This is the number of veterans in our representative sample that had -- so only three veterans had zero protective factors, and their rate of engaging in severe violence, their predictive probability is .66. And what you could see on the other side is 364 veterans in our random sample had all eight protective factors, and their risk of violence, severe violence, was .05.

So what you could see pretty clearly is that as veterans had more protective factors, the risk of violence reduced by 92%. And so a few things I think are important to review. One, the vast majority of veterans have a lot of protective factors. We're talk about a subset, a small number of veterans who don't have a lot of protective factors in their lives. The second is that the treatment that you can give and the risk management plans that you can develop the bouncing of the ball. You can help move a veteran down

and reduce their risk of violence by helping them have these type of protective factors in their lives; of work, basic needs, making sure they have living stability, improving their resilience, making sure they feel they're self determined, spiritual faith, improving social support. So those are all ways in which statistically you could see are associated with reduced probability of violence.

And I should mention, too, that this control for a lot of risk factors was a multi-varied analysis. So there are people in the zero column that don't have post-traumatic stress disorder, and there are people in the A column who do. So there are definitely some statistical -- there's incremental reduction in violence risk by addressing protective factors.

What about physical wellbeing, doing psych and physical health and protective factors? And what we found is that veterans who do not report sleep disturbances have much lower rates of violence and other physical aggression in the next year than those who do report sleep disturbance. And then also, those who -- there level of pain is also relevant. And so what we found is that there's a reduction in risk of violence and aggression among veterans who do not report pain problems. Those that do, do report higher levels of aggression next year.

I should mention that in this paper we looked at low risk and high risk for violence, and it turns out that the protective mechanism of sleep and pain, actually, it leads to greater reduction of violence in the high-risk group. So it's not just for the low risk. The veterans who do have many risk factors, if you do address pain problems or you do address sleep problems, that will help. That is associated with reduced risk of violence. So, so far, looking at protective factors, seeing what the role of PTSD is and making sure to review empirically valid risk factors, if you're going to look at anything, look at what the research is showing.

So the fourth rule is to do all that in a systematic way. And so we have a polling question. I'm going to let them put up the polling question. So in your own clinical judgment, how good do you think mental health professionals are at predicting violent behavior? Answers still coming in. Maybe 30 more seconds. Okay, ten more seconds. Here are the results.

So you can see that about 61% said slightly better than chance. You have 3% much worse than chance, and 6% much better than chance. Okay, so I'm going to show you -- I'm going to go back to the PowerPoint. Thank you. Slightly better than chance. I'll show you -- I'll explain how much better than chance in a minute. But regardless of whether you're talking about clinical decision-making in psychiatry or in medicine, what's generally agreed upon is that we, as clinicians, are prone to errors, and to reduce those errors we will improve our clinical practice by using decision-making aids. That way we make sure that we always remember to ask about history and violence, that we always remember to ask about those empirically validated risk factors and protective factors, and prompt us to ask about what's the link between PTSD and violence.

So there has been one -- for veterans, there has been one screening tool that's been developed. It's called the "VIO-SCAN," and it asks about five factors, all which have been shown, not just in this study but in many other studies, to relate to violence risk in veterans. Do you have enough money to cover the following basic needs? On that experience, we found that this variable was associated with violence risk; did you personally witness someone being seriously wounded or killed? Alcohol misuse; has a relative or friend or doctor or health worker been concerned about your drinking or suggest that you cut down? Have you been arrested for a crime or been violent towards others? And how many times have you been irritable in the last week? This last item, if the answer is four or more times and there's the diagnosis of probable PTSD, that would count as a one-time response.

One of the things I should mention is this asterisk. A lot of -- when we asked veterans in the VIO-SCAN about whether they've been violent towards others, we are specifically excluding controlled aggression conducted in the context of combat. That does not get included for this. I think is very important. Because some risk assessment tools make that distinction and some don't. This one does.

And just to give you a sense of what the scores mean in term of predicted probability of severe to mild in the next year, a score of zero has a predictive probability of .025, versus a score of 5 predictive probability of .539, and that's severe violence in the next year. Again, note, just like before, most veterans are reporting few risk factors. Very few veterans, a subset, are at high risk. I think that message again and again is what our underscore is. Most veterans are not having problems with violence.

Now the VIO-SCAN is really important, to realize what -- how this could be used, because it is a tool that's available that's taken all the research and has put it into a clinically useful format. So what does a one mean? Well it means that you would want to investigate that risk factor. So the veteran endorses the history of violence, you as a clinician, that would prompt you, as a clinician, to say, "Well what type of violence, how severe was it, how frequently and when did it last happen". Basic needs, is this connected to violence and how? So if someone says their basic needs aren't being met, is it that they're not able to afford their medical care, and, therefore, they can't get medications that would be important, or is it that they don't have transportation to even get to the medical center, oftentimes the VA, or is it that they're homeless and they in an environment that's exposing them to violence? So a score of one, I mean, this might be a risk factor that I, as a clinician, might want to investigate as to whether or not this veteran might be at risk of violence. So that's how to interpret the individual risk factors.

What about multiple risk factors? Well we saw what the co-occurring PTSD misuse, that if they endorse those two items, then you would know that those two together have strong association with violence, and you want to then investigate, well how are the PTSD and alcohol misuse, are they affecting one another? Is the veteran drinking, withdrawing from alcohol, and hung over, and, therefore, becoming irritable and then PTSD symptoms get exacerbated, and then there's self medication of the alcohol to deal with the emotional dysregulation? Is that a veteran is having nightmares, and, therefore, drinks alcohol to deal with the nightmares, but in a non-effective way, which then of course results in less sleep and hyper-arousal symptoms? What is that co-occurring link? How is that related to the violence? That's one co-occurring. But there's other risk factors that could co-occur.

So imagine that you have a veteran on the VIO-SCAN says that they're homeless and they've had past criminal justice involvement. How easy is it going to be to help them get that protective factor that I mentioned before, get a job? Those risk factors, those multiple risk factors might actually be really important to know about in terms of developing a realistic violence management plan. And they may also be important in terms of understanding well, how do these risk factors combine to maybe even tell the veterans risk of violence.

Now this is very important, the total score. You'll notice that on the figure that I showed there isn't high risk/low risk and the like. There isn't labeling. In general, higher scores, as you saw from the figure, do mean that that veteran has a higher chance of reporting problems with violence in the future. A veteran might, who has a high score, might be a good candidate for a comprehensive risk assessment. That might be one thing that you'd want to do with a high score, and say, "We need to use other more comprehensive risk assessment tools that need to see what their assessment of violence risk is." Remember, this is just a screening tool.

But you can't be fooled by low scores either. The low score of one might be really important to an entire violence risk assessment because it might be because the veteran was just severely violent in the last few days. So they may not have any other risk factors. So the total score needs to be, A, never used alone, and, B, not used -- just because it's low doesn't mean that there's no risk, and just because it's high doesn't mean that the veteran is definitely going to be violent.

So what can the VIO-SCAN scan do for you? What it's really doing is its distilling all those rules of thumb in the beginning of this talk into a simple screen to help you as clinicians consider, at a minimum, five of those risk factors that have now consistently been shown, in both Iraq and Afghanistan veterans and veterans in previous areas, to relate to aggression and violence. At a minimum, it will prompt you to consider those. Two, the higher scores certainly might be identifying veterans who are higher risk of violence, and, in that way, could better prioritize referrals of veterans who are more likely or less likely to need a comprehensive violence risk assessment.

The other aspect of this is that you may notice that a number of those factors were dynamic, in the sense that they could change. Anger can change. Meeting basic needs, whether you're homeless or not, whether you have transportation or not, whether you can afford your medical care or not, whether you're drinking alcohol or not. Those are all dynamic, and they can point to, well, what can we do to help address this risk of violence in a way that we can work with the veteran and say, Hey, these are some of the ways that we might -- you know, that you can help reduce your risk of violence. The VIO-SCAN at least points to some avenues for potential interventions.

This is very important. This does not replace a comprehensive risk assessment. It's five items. There are a host of other factors, even beyond the ones that have discussed in this phone call, that need to be considered. The VIO-SCAN should never ever be used to designate whether a veteran is at low, medium, or high risk. So just because a veteran has high score doesn't mean that they're going to be violent. Just because their score is zero doesn't mean they're never going to be violent. So the VIO-SCAN is not meant to either replace decision-making or to replace a risk assessment and shouldn't be used alone. Instead, really, the VIO-SCAN is meant to help follow some of the rules of some that have been derived from the events. The science of violence risk assessment puts them into a useful screening tool and helps you as clinician to begin to have a tool -- it's like a springboard for what direction do you want to look at. At a minimum to consider at least these five empirically supported risk factors for coming up with a plan to reduce violence risk.

So one approach, if you are meeting with a veteran and doing an assessment of violence risk, would be to do the following: First, you would ask a veteran what some of their protective factors are. What do they see as helping keep them safe in the community? What are your plans for your work, for your social life? Tell me about your friends? Tell me about your family? It's a very important thing to realize that, whether it's for civilians or for veterans, undergoing a violence risk assessment can be difficult for the examinee to hear and to have to rehash a lot of their violence past. Instead, this helps almost give a recovery-oriented approach to having a veteran talk about what are their goals for and engaging them in the process. What are their goals for staying safe in the future and then allowing you as a clinician to say, okay, well what are the things they're going to get in the way of those goals? What are some of these risk factors, especially the ones that, at a minimum you would want to go through that have had some empirical validation that might be in play when it comes to this veteran.

Then you do want to consider the role of PTSD. If the veteran does have PTSD, does that play a role in conceptualizing how or whether the veteran might be violent? And then also going beyond that diagnosis and what are the different symptoms of PTSD? Is their anger going on or hypervigilance? What are some of the co-occurring issues going on, and so is there alcohol abuse? But just as important -- and I want to stress this -- is that while there is knee-jerk reaction, like I said, to say it's the PTSD, veterans are subject to the same risk factors as civilians, and so to consider the non-PTSD risk factors; younger age, history of childhood abuse through violence, history of criminal arrest, substance abuse, and financial instability. All those have been shown in civilian populations and veteran populations to be related to violence risk. So you want to, at the same time, not entirely forget that, yes, PTSD is relevant, but there's so many more important and as important things to be looking at in terms of whether this veteran is going to be violent in the future.

Lastly, consider using the VIO-SCAN to assist with this process, or other violence risk assessment tools. . Now it's important to there haven't been a lot of -- other violence risk assessment tools have been shown to be validated in civilian populations. There has been less work in military and veteran populations at this point in time. But that's what we have, so you could use those other tools, but making the caveat of limited validation in veterans populations.

So in the remaining few minutes, what I want to do is just recap some of the messages that the research has shown. And I think -- I know I've said this a few times, but it's really important to realize that we're talking about a subset. And this is an important issue, because on the one hand, as a clinician we don't want to be stigmatizing veterans. On the other hand, we also don't want to -- we want to be able to detect which veterans are most at risk so we can help them before they might engage in a violent act. So it's

balancing those two things, I think, is really important, and recognizing that aggression is a problem for veterans, but it's a subset.

And in terms of severe violence, it's a subset that -- I should mention there has not been a comparable study with civilians, so we don't know whether that 11% rate is higher or lower than the civilian rate. And I think I saw a question or two about that, in terms of what people are writing. So I want to just say that there hasn't -- that figure -- there hasn't been a study that's measure violence in the exact same way for veterans and for civilians, so we don't know whether this is any different. So that's important to realize. Regardless, you as clinicians are going to be encountering, and probably have encountered, veterans who at least complain of anger and aggression and you have to do something about it, and it's for a subset.

This is an intricate link between PTSD and violence. I hope that I've impressed that upon you today, is that most veterans with PTSD actually don't report problems with aggression. That's important to realize. It's hard to keep that in mind though, at the same time that I'm saying that, it still is associated with a higher every rate of violence. And combat exposure has also been shown to be related to a high rate of violence but not as consistently. So we did find one aspect of combat exposure in the VIO-SCAN that was associated with high risk of violence.

But, really, those things pail in comparison when you start looking at co-occurring disorders. So you see that the veterans with PTSD who were not misusing alcohol -- and that was the majority of them, two-thirds -- were 72% less likely to report [inaudible] next year. It's really the combination of both PTSD and alcohol misuse, and the specific PTSD symptoms, that really account for the great increase risk of violence.

And as I just mentioned, there are a number of non-PTSD risk factors that need to be considered in the course of your assessment and development of a risk management plan. Does this veteran have a history of criminality before military service? Do they have some economic and money management issues, financial issues? Do they have trouble getting a job? Are they not employed? Are they homeless? And then some of the demographic, younger age consistently.

Lastly, the role of protective factors. When I do a risk assessment I always start with these. I think they're less stigmatizing. I think veterans want to be involved and have control. I think this is over their own futures and, in fact, we found that self determination was related to reduced risk of violence, so why not put that right into the risk assessment. Help a veteran begin to come up with their own recovery goals right in the risk assessment, where they're telling you, as a clinician, these are the ways that I can be engaged. I want a job. I want to balance my checkbook. I want to get a home. Those are ways that you can start. And what are the steps towards achieving those goals? So both basic functioning aspects of living financial/vocation abilities and environments and then also wellbeing, not just psychosocial but also physical. Remember, pain and the sleep problems are involved the veterans risk of violence.

So those are some of the main points from today's talk. There are a number of references listed here on the slides, and I believe there are some attachments and PDFs. There's going to be an opportunity to ask questions right now, but always feel free, you can e-mail me at University of North Carolina Chapel Hill if you have any questions about any of this. So what I think I'm going to do now is open it up to questions, because there are many.

All right, Dr. Elbogen, thank you very much for your presentation. It is now time to answer questions from the audience. If you have not already done so, please submit questions via the question pod located on the screen. We will respond to as many questions as time permits.

One question that came up we'll start off with, "Is homelessness a predictor because they're more likely to initiate violence or because they're subject to violent situations that require them to defend themselves?"

That's a really good question, and I may have to actually look in more detail about that. One of the problems is, to do that, you may remember, there are only 15 people who endorsed homelessness, and

so it's a very small subset, so it's difficult to look too much into that. What I could tell you is from the civilian literature, you're right, whoever made that point is right on target. When you're in a homeless situation you're exposed not only to violence but also substance abuse, which itself is a risk factor. You have financial strain and stress. You're vulnerable. There's a lot of different pathways between homelessness and violence.

And what I want to add, too, though, is what some of the causes of homelessness are. And there are a disproportionate number of homeless veterans compared to civilian homeless. So if you look at the homeless population in the United States, even though veterans make up 10% of it have general population, they make up about -- well the estimates vary, but between 15 to 33% of the homeless population. So homelessness is relatively higher for veterans. There are different reasons for that. It could be substance abuse and mental health problems.

Another one to think about, which is related to some of the things in this talk, is financial literacy. Please Google "Financial literacy and homelessness" after this talk. And while that seems to make a lot of logical sense, you're almost going to find nothing, except one article that our group published, that links the two together. What we found is financial literacy or money mismanagement quadrupled the risk of homelessness in veterans for the next year. So I think all those together, being homeless, having financial strain, potentially being exposed to substance abuse, all those could be reasons why homelessness increases risk for veterans. And I mentioned the aspect that veterans do appear to have a higher rate of homelessness than civilians, so it is a risk factor to really consider.

Okay, another question. Are there any veteran-specific intervention programs you can point to that are either VA sponsored or not?

To reduce -- well I guess it depends on what the programs are for. In terms of specific VA programs to reduce violence, I am not aware of any. I should mention that it's not necessarily a VA or veteran-specific issue, they're actually a real lacking -- in the adult civilian literature, there are not a ton of randomized clinical trials showing a specific intervention reduces risk of violence.

Now, given that's the case, there are a few studies, not that many, looking at addressing the protective factors, and there's certainly the VA has psycho social rehabilitation recovery centers, which help veterans create recovery plans to help develop goals and living environments, working environments, and the like. So I think that there's definitely, in terms of protective factors, that's consistent with that approach. And certainly to the extent that all the evidence-based practices for PTSD and substance abuse and dual disorders, both co-occurring PTSD and substance abuse, those would be relevant to helping reduce violence risk. So that's the best I can answer that.

Okay. Thank you. Another question; What type of psychological triggers should we clinicians be aware of?

Psychological triggers? Well, I think usually I guess it depends whether that's question is being asked in the context of post-traumatic stress disorder. Because certainly with respect to the hypervigilance, there are some veterans who have PTSD and profound hypervigilance symptoms that they're going to be wary of their environment, and that could be a trigger you should be aware of.

I think, given that anger is so important, every human being and every veteran probably has a different trigger for what makes them angry. And there are anger management programs. SAMHSA has a cognitive behavioral therapy anger management module that's available online that's specifically asks, you know, what are some of the triggers for your anger and gives a whole list that's available.

So, you know, I see the rest of the question, is it solely based on individual variation? I think that there is going to be a lot of individual variation in term of psychological triggers.

Okay. Another question, is there any indicator that drug abuse is a separate indicator for violence? Or was it included in the alcohol abuse use data that you presented?

That's a great question. So we mainly looked at alcohol abuse. The endorsement of drug abuse was fairly low, so there wasn't a lot of statistical power, at least in our analysis to look at that. In other studies, though, there certainly has been, and there have been studies that have found that drug abuse is a separate indicator for violence. So the answer is yes to that. But in ours, we didn't look at drug abuse, because we just didn't have enough endorsement.

Okay.

There's one last thing. It also turns out that, at least in our sample, the veterans who did endorse drug abuse have also endorsed alcohol abuse, so they were a subset of those of alcohol abuse. I think probably a good follow-up analysis, based on your question, would be to actually look at, you know, does that add something, using full poly-substance abuse, my hypothesis wouldn't yet, but we haven't looked at that.

Okay. Thank you. Another question, would you be able to discuss the difference between veterans and service members who have seen combat; that is, they have been outside the wire, as they say, versus those who have been in theater but have not seen direct combat, and the relationship of those two categories to PTSD and violence.

Oh, boy, we could probably give a whole hour-and-a-half on that question alone. I think it's a good question. You know, there's a lot of -- there are a lot of mixed findings on that. I think if I were to -- there are studies that show that being in combat is what relates to violence, and there are studies that show that, well, it's when you've been in combat and you have PTSD, that's really the PTSD that's related to violence. So the answer is there is no answer right now. I think we did find that specific combat-related -- so witnessing someone dying was related to severe violence in our sample. And in the UK, they have found that combat exposure specifically has related to increased violence risk.

But one of the limitations in all that is that the combat exposures also are so highly correlated with post-traumatic stress disorder it's sometimes difficult to disentangle them because the post-traumatic stress disorder may lead to increased anger and use of alcohol abuse. And unless the analysis really controls for those co-occurring disorders, you know, it's going to be hard to really say, oh, it's the combat. So right now, at least my read on the literature, is there's not a consistent link between the two.

Okay. Another question was, what is the VIO-SCAN research validating tools with criminal records or the ACR-20?

Okay. So we published the study on the VIO-SCAN last year. We would love more people to be validating the tool. In fact, we wrote down that until other research groups use it, you should use it with caution. We have not linked to criminal records, and we do recommend the ACR-20, and there's the ACR-20 has a third version, the D-3 right now. Certainly there doesn't -- and other empirically validated tools right now have been shown to be used for comprehensive risk assessment so you'd want to use ACR-20 more for that. The VIO-SCAN is really just meant -- it's not the same as the ACR-20. It's just a five-item screen to prompt you, as a clinician, to at least look at those five risk factors. But right now the research on the VIO-SCAN is the one article that was published last year, and we're awaiting future replication of that, which would be great. And if anyone is interested in doing that, please, you know, do so.

Okay. More general kind of question or comment and that is, can you highlight, again, the importance of decision-making in a more systematic process -- as a systematic process using a checklist, the importance of that?

Oh, absolutely. So clinicians, there's been a lot of research looking at violence risk assessment and what are some of the decision-making errors that might be made. One of them is that clinicians -- they're top-speed clinicians -- rely a lot on clinical factors and behavioral factors but less so on situational factors. So they make what's called a fundamental attribution error. Human decision makers do in a lot. So a clinical decision-making tool would help you as a clinician not make that error and make sure, oh, we're going to

look at the context of this person's life, not just at their individual risk factors. So that's just an example of the kind of decision-making error.

Another decision-making error is we forget to ask certain items. We're inconsistent on different day. So some days we might ask about history of violence, but some days we might forget or don't even remember whether a patient or veteran has a history of violence. Having the VIO-SCAN or having decision-making tools helps ensure that you at least ask or get that information, can help prompt -- to help you as clinicians mirror these structured systematic clinical models so that you don't forget. So those are two just quick ways in which -- there are a number of other decision-making errors, clinicians make sometimes. We use the availability heuristic; meaning that we'll pay attention to readily available information, like let's say a veteran is right now cursing or screaming, even though that doesn't necessarily relate to violence risk, we'll over rely on that. And, instead, maybe harder information to get would be, you know, having to look back in old charts to get old information; that there may break a history of child abuse that may be harder to get, and we rely less on that.

So, again, use of these structured tools, whether it be the VIO-SCAN for screening or the ACR-20 and comprehensive risk assessment improves your decision-making by making sure that you are at least covering the risk factors and protective factors that relate to violence risk. So that's how those tools and getting using checklists does so. And it's not just psychiatry, it's medicine too. I would recommend a tool Gawande Checklist manifesto, where he created checklists for surgeons in hospitals in Boston, and showed reduced infection from that. So it's medical and clinical decision-makers alike who benefit from having structured tools.

Thank you. Another question is do you need specific qualifications to use the VIO-SCAN, or can a managed family counselor use it without risk -- use the risk assessment tool?

Well it's not -- and I'm glad you phrased it that way. It's not a risk assessment tool. It's merely a screening tool that can point to the need for a full assessment. In terms of who could use it and what qualifications, you know, this should never be used alone. So in a way, it's not really like it's own entity. You could administer it. There are no specific qualifications, but there are specific instructions on the use of the VIO-SCAN, and one of the most important instructions is not to use it alone to label a veteran as high risk or maybe low risk. What you can use it as -- and there are no special qualifications for this -- is as a structured checklist to at least prompt you to look at those factors.

Okay. Another question, have you found or seen any gender differences between males and females veterans in terms of incidence and pattern of violence behavior associated with PTSD and alcohol use?

Good question. We haven't. As I mentioned before, we did find -- so there are 70, 80-plus study that is look at what relates to violence in veterans, and gender has not consistently made it to those studies. So in terms of the frequency of violence in the veteran population, there doesn't seem to be the typical gender gap.

On the other hand, we did find a difference in terms of women veterans at least reporting more family violence, and male veterans reporting more I stranger violence. But we haven't looked yet at whether that's being mediated by PTSD. Our rates of PTSD were the same between men and women, so that is about 20%. And the alcohol rates were higher among the men in the sample, and that's consistent with the civilian literature too. So one would guess that those variables might be influencing. It would be really interesting to look at.

I don't know whether the other study that looked at -- that found that women veterans were more likely to report domestic violence, if it was published by Taft and Colleague, and I don't know whether they looked at PTSD or alcohol abuse.

Okay, another question, and I'm going to paraphrase the question here. How do you manage or address a patient who has PTSD but is refusing to seek help and is also refusing that family members seek help to address the problem?

Well there's a lot of literature on barriers to care out there. There's a lot of science saying these are -- you know, there are these beliefs that a number of veterans have about this, and about why they do or don't want to go to the mental health care. We looked at that in our survey, and what I can add to the discussion on the topic is the following: Stigma is seen as one of the reasons why veterans don't go into care. What we found, though, is that we compared the vets -- and this is veterans with PTSD and other mental health problems. We compared the veterans who did and did not go to care on their perceived stigma, and we actually found that the veterans who had gone to care had higher levels of stigma than the veterans who had not gone to care. And I think that we interpret that finding as pretty important in this sense, I think there may be a misunderstanding that, well, once someone overcomes that barrier to accessing care, then the beliefs disappear, and that's not the case. In fact, that's not the case.

In fact, in this case, now it's no longer abstract that someone's in mental health care. They're waiting in waiting rooms with other mental health patients. It's more concrete now, and now they're actually going to get help. And they need to acknowledge that they have a problem, so they perceive more weakness. So in terms of answering the question, what we've done is by being aware that veterans are coming into your office, that is with PTSD, and perceiving that either they don't think they need help or that they're weak for getting help, nipping it in the bud at the start and saying, "You know what, a lot of veterans have the same problems as you, but you actually had the courage to come in," and so show their strengths about that right at onset has been very successful in terms of addressing one of the many reasons why veterans with PTSD don't stay in the care. There's others, but for now, that would be one of the -- from our research, one of the findings that would be relevant.

All right, the last question for today, and if you would be so kind of elaborate a little bit more on the protective factor, how do you weave that into the assessment of the risk assessment for violence? Can you give us some more suggestions or hints?

Sure. Well as I mentioned, I like to weave it, actually, right at the beginning at the onset of the assessment, saying, okay, we're here to assess your risk and safety in the community, what are your personal goals? What do you want to do with your social life, with how in control of your future do you feel? Tell me about your friends? What do you want to do with your job. Tell me about your finances, your living situation. What are things you want to do for leisure. So really starting off -- do you go to church? What are your spiritual beliefs? Engaging in those is less stigmatizing than starting off the session by saying, "Hey, tell me about that time you were really violent."

This is important information for you doing the risk assessment to get so that you could see what are some motivators for the veterans to potentially themselves can engage in helping reduce risk of violence. What are things that they want that their risk factors that might be getting in the way of? So that would be one piece of advice of how to integrate those two.

And then to really get a sense of and to collaborate with the veteran in developing a safety plan and have them co-write it and engage in the process and get a sense of -- and they're not going to agree, necessarily and have -- you want to see what are their perceptions of each of these and how much they're going to help. I think that that's a good way of engaging the veteran in the process.

Well thank you very much. Thank you again to our presenter, Dr. Eric Elbogen. Today's presentation will be archived in the monthly webinar session of the DCoE website. To help us improve future webinars, we encourage you to complete the feedback tool that will open in a separate browser on your computer. To access the presentation and resource list from this webinar, visit DCoE website at dcoe.mil/webinars. A downloadable audio podcast and edited transcript of the closed caption text will be posted to that link.

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The next DCoE traumatic brain injury webinar topic is Clinicians Guide: Assisting Families Members Coping with Traumatic Brain Injury, and it's scheduled for July 9th, 2015, at 1:00 p.m. The next DCoE psychological health webinar topic is Optimal Use: Behaviors in the Military, and it's schedule for July 23rd, at 1:00 as well.

Thank you again for attending and have a great day.