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Molly: Here we are at the top of the hour so at this time I would like to introduce our speaker. We have Doctor Lindsey Monteith joining us today she is a clinical research psychologist at the Rocky Mountain MIREEC and an assistant professor in the department psychiatry at the University Of Colorado School Of Medicine. I am very glad to have Doctor Monteith sharing her expertise with the field today and at this time. Are you ready to share your screen Doctor Monteith?

Lindsey: I am.

Molly: Excellent, you should have that pop up now.

Lindsey: Alright.

Molly: There you go.

Lindsey: Thank you so much for that introduction Molly and thank you all for joining me today for this cyber seminar on military sexual trauma and self-directed violence. I would like to highlight the fact that this month is sexual assault awareness month. Before I get started just have to say that this presentation is based on work support impart by the VA and the Rocky Mountain MIREEC but the views presented today are my own and do not necessarily represent the views or policy of the VA or the United States Government. I would like to acknowledge support up in the Rocky Mountain MIREEC in this line of research and the contributions of several individuals within our MIREEC; people who are presently or have previously contributed to the conceptualization, design, recruitment, and dissemination of findings that I will be presenting today. I am going to hand it back over to Molly.

Molly: Thank you. Perfect. So for our attendees we do have a poll question up on your screen and we would like to get an idea of who is joining us today. So we know many if you wear many different hats within your careers but we would please like you to select your primary work setting so we have Department of Veteran Affairs, Department of Defense, Academic Medical Center, Community, or other and if you are selecting other please note that at the end of the presentation I will put up a feedback survey with a more extensive list of roles so you may find yours there to select. It looks like we have got a nice receptive audience. We have already had over eighty percent submit replies so thank you very much for doing so. And at this time I will go ahead and close the poll out and share those results. So as you can see it looks like we have eighty three percent who are joining us as their primary role is in the VA. We have one percent from the DOD, Department of Defense, one percent from an Academic Medical Center, eight percent joining us from Community and six percent responding other so thank you for that. Lindsey did you want to make any comments before I move onto the next poll?

Lindsey: No.

Molly: Okay, we will go ahead and move onto the second poll question here. Okay, so for attendees you can see up on your screen there is a second poll question. What is your goal in attending this cyber seminar; to inform the clinical care that you provide, to inform your research, to inform policy, or other, and again if you are selecting other and during our feedback survey at the end of the presentation there will be a section to write in your replies. And once again we have already had just about eighty percent respond so we will give people just a few more seconds to get their replies in. Great, so at this time I am going to go ahead and close it out and share those results. So it looks like 61 percent of our audience is hoping to inform the clinical care that they provide, 25 percent inform their research, two percent to inform policy, and 13 percent, pardon me, replied other. So thank you again to our respondents and Doctor Monteith I will turn it back to you now.

Lindsey: Alright, thank you for completing those polls which helps me to understand who is in the audience today and what you are hoping to achieve from this presentation. My hope is that whether you are attending to inform your clinical work or your research, that this presentation will include elements that will address both. I have three main objectives that I hope to achieve today. The first is to present research examining the association between military sexual trauma and suicidal self-directed violence. The second is to describe recent efforts to identify processes associate with self-directed violence among those veterans exposed to military sexual trauma and lastly I will conclude by discussing clinical implications in consideration for future research. We will leave some time at the end for questions as well.

Military sexual trauma or MST for short as many of you likely know is defined within the Department of Veterans Affairs as psychological trauma resulting from sexual assault or sexual harassment that occurred while an individual was active duty or active duty for training. All veteran in the VHA are screened for MST and due to nationwide efforts across different VA systems approximately 4.9 veterans have been screened for MST since 2002. Both men and women report experiencing military sexual trauma but women are at significantly elevated risks for MST as you can see here. Nationally 25 percent of woman and 1.3 percent of men within VA screen positive for MST and similar rates are reported among veterans who served post 911 as you can see here and as you might expect veteran in mental health settings screen positive for MST at higher rates. So I would like to briefly highlight some considerations that we took into account when deciding to study MST and self-directed violence. First due to the effort of many researchers we know that MST is associated with a complex array of potential health consequences. Veterans who have experienced MST are at significantly increased risks for both mental health and medical conditions. MST is also related to impairment in interpersonal relationships, homelessness, and decreased quality of life. Research with civilians has demonstrated that sexual trauma and sexual assault in particular is associated with increase rates of self-directed violence. However, the context in which MST occurs may distinguish it from sexual trauma that occurs in the civilian sector. As an example consider sexual assault or harassment that occur while an individual is deployed to a combat zone where they may be away from their traditional source of the social support and where they might be dealing with other ongoing threats to their personal safety. In addition evading the perpetrator may be especially difficult while someone is deployed or if the perpetrator is a coworker or within one’s chain of command. So based on these findings we expected that military sexual trauma would be related to suicidal self-directed violence. To gain a comprehensive understanding of what research had been done in this area and where we should begin we initially conducted systematic review, this was in 2013 and we focused on two key questions. The first key question was, is military sexual trauma associated with suicidal ideation, suicide attempts, and death by suicide. Our second key question focused on examining the prevalence of self-directed violence among veteran and service members who had a history of MST. So after conducting a systematic search of the literature in this area we identified only seven articles that addressed these two key questions. I am just going to go over these findings very briefly. In regard to our first key question which examined the association between military sexual trauma and self-directed violence, we initially identified three studies that examined suicide attempt as the outcome. All three studies listed here were constant in finding that individuals who experienced sexual trauma during their military service were at significantly elevated odds of attempting suicide. Two studies were identified that examined the association between military sexual trauma and suicidal ideation. They were conducted with post 911 veterans and the results were mixed so we concluded that more research was needed to clarify the nature of the association between military sexual trauma and suicidal ideation and lastly at the time there were no studies that examined the association between MST and death by suicide. So we concluded that conducting such research was really a critical—a needed step towards understanding the long term sequelae of MST.

In regards to our next key question, fairly high percentages of individuals with MST reported subsequent suicidal ideation or suicide attempts. For example, of you look on the left here 13 to 46 percent of veterans with MST reported suicidal ideation with more recent time frame and then anywhere from zero to ten percent with MST reported a suicide attempt. I would like to highlight here though that the numbers presented there above were generally obtained from studies that were deigned to address other objectives rather than specifically to address this key question and that the samples varied widely in terms of whether they were more national samples, or smaller samples of veterans in treatment for PTSD so really, more research was needed to look at the prevalence of self-directed violence among veterans who had experienced MST. So as noted previously for a more systematic review we concluded that more research was needed to examine the association between military sexual trauma and suicidal ideation as well as looking at suicide as an outcome. In addition population based research examining self-directed violence among veterans with MST in different setting was needed. So conducting the systematic review was actually very informative in demonstrating what research had been conducted so far at that time and identifying next set of steps in this area. So I am going to turn it back over to Molly for another audience poll.

Molly: Thank you very much. So for our attendees you do—give me just me second here, you do have the third poll question here up on your screen. Sorry, is this the correct one or did I jump ahead?

Lindsey: That is the correct one.

Molly: Okay perfect. So I am going to give you a little preface to this because I could not fit the whole poll question on here so please listen closely. Veterans can experience a wide range of traumatic events prior to, during, and following military service. For future studies examining the association between MST and SDV what type of trauma would be most important to adjust for? So please select one response. We will give people some more time to think about this one. So again veterans can experience a wide range of traumatic events both prior to, during, and following military service. So for future studies examining the association between MST and SDV what type of trauma would be most important to adjust for; childhood trauma, adult sexual trauma in civilian status, combat, none there is no utility in considering other traumas, or other not listed above. And it looks like we have capped off at right around 75 percent of our audience but I see a pretty clear trend so I am going to go ahead and close it out and share those results now. So as you can see we have 58 percent of our respondents saying childhood trauma, 17 percent adult sexual trauma, 22 percent combat, one percent none there is no utility in considering other traumas, and one percent reporting other not listed above. So thank you for those respondents and I will turn it back to you now.

Lindsey: Alright, thank you. So that was a question that we thought about quite a bit after conducting the systematic review and the first study that we undertook after the systematic review examined whether sexual trauma during deployment was associated with current suicidal ideation among OEF, OIF, OND veterans and whether that association remains significant when adjusting for combat exposure. I will provide a brief over view of our findings but if you are interested in learning more about this study the results were published last year in the journal of traumatic stress. So in weighing the evidence regarding the association between sexual trauma and suicidal ideation the jury was still out, based on our systematic review research had not yet examined the association between sexual trauma and self-direct violence in veterans seeking trauma focused care yet among OEF, OIF soldiers, 12 percent of women and 0.5 percent of men report that they experienced sexual trauma while they were deployed. If you screen previously deployed OEF, OIF veterans within the VA for MST these rates increase and then when screening OEF, OIF veterans with PTSD for MST these rates nearly double. So examining the impact of sexual trauma during deployment among post 911 veterans with MST seemed to be especially important. Our sample included 199 previously deployed post 911 veterans who were entering trauma focused VA and patient treatment. The majority of individuals in our sample were male, roughly 86 percent and the mean age was 32 so it was a fairly young sample. The majority of participants served in the Army and about one quarter has served in the Marines. The average time since discharged from the military was four years and sixty percent of participants reported experiencing suicidal ideation in the past week. In terms of the measures that we administered participant completed the deployment risk and resiliency inventory or DRRI sexual harassment scale which assesses exposure to both sexual harassment and sexual assault experiences while deployed. The DRRI combat experiences scale was used to assess the degree of exposure to combat during the most recent deployments and then the Beck scale for suicide ideation or the BSS was used to assess suicidal ideation in the past week and that is basically a self-report measure of 21 items, 19 of which are used to examine suicidal ideation. So to examine whether sexual harassment during deployment was associated with suicidal ideation a hierarchical linear regression included age, gender, and sexual trauma during deployment as predictors or current suicidal ideation. And in this first model sexual trauma during deployment was significantly associated with suicidal ideation in the past week. Next, we reran that model but we included combat exposure as a covariate and when including combat in the model, results did not substantively change. So adjusting for age, gender, and the severity of combat exposure, sexual trauma during deployment continued to be associated with suicidal ideation in the past week. So what do these findings add to what we already know or knew about sexual trauma and suicidal ideation? So these findings were consistent with those opined by Doctor Gradus and colleagues and seemed to metaphorically tip the scales in regards to the evidence reporting the association between sexual trauma during deployment and suicidal ideation. Our findings also suggested that this association remains significant even when you account for combat and focus on a trauma focused treatment sample. There are some limitations of this study that are important to acknowledge. First the inability to conduct gender stratified analysis is a limitation as well as the focus on previously deployed veterans in impatient treatment in a cross sectional design. I should also mention we used the earlier version of the DRRI sexual harassment scale which does not asses sexual trauma that was perpetrated by civilians. And then lastly, we examine all types of exposure together which precluded us from determining whether sexual harassment or sexual assault during deployment were associated with current suicidal ideations. We have another audience poll and then I will let everyone know that the polls decrease in frequency after this one.

Molly: Thank you. So for, I believe this is the final poll, should research examining the association between MST and suicidal SDV examine MST as a single construct and again I had to truncate some of these answer options so please listen closely as I read them in full. First answer option, yes all sexual trauma is the same. Second answer option, yes even though sexual harassment and sexual assault may differ, this would be constant with how MST is defined. No, MST includes too many different types of experiences to be examined together. So again I will go ahead and read those answer options out loud. First answer option, yes all sexual trauma is the same. Second answer option, yes even though sexual harassment and sexual assault may differ, this would be constant with how MST is defined. No, MST includes too many different types of experiences to be examined together, or not sure. And these are not being graded this is anonymous so go ahead and make an educated guess. And it looks like we have got around 70 percent response rate but answers are still coming in so we will give people a little bit more time. Okay, it looks like we have capped of right around three quarters percent response rate. So we will go ahead and close this out and share those results, we do have a variety of responses. So we have two percent saying yes, all sexual trauma is the same, 41 percent yes, even though sexual harassment and sexual assault may differ this would be consistent with how MST is defined, and 44 percent reporting no, MST includes too many types of experiences to be examined together, and the final option, 12 percent reported not sure. So thank you again to our respondents and I will turn it back to you now.

Lindsey: Thank you Molly and thank you everyone for filling out that poll, your responses really are helpful in sort of us thinking about how to proceed next and again this is a question that we were pondering when we conceptualize the next study.

Molly: Lindsey?

Lindsey: Oh yes, can you hear me?

Molly: Yeah, I am sorry to interrupt I just want to acknowledge that I do see that there is another poll so I did not mean to scare you when I said that was the last one.

Lindsey: Oh, that is okay thank you. Alright so the results of the next study were published earlier this year in suicide and life threatening behavior. So within the VA MST is typically referred to as a unidimensional construct comprising sexual assault, and sexual harassment. However, different types of sexual trauma are associated with different estimates of prevalence and outcomes. For example, service members report experiencing sexual harassment or frequently in sexual assaults, according to Department of Defense estimates when surveying active duty military personnel, six percent of women and one percent of men report experiencing sexual assault in the prior year. In contrast when surveying individuals about sexual harassment in the prior year, 23 percent of women and 4 percent of men reported sexual harassment. Know that there is some research to suggest that sexual harassment and sexual assault are associated with—but they are both related to adverse outcomes but that sexual assault is associated with more severe outcomes such as more severe PTSD sometimes. At the time that we conceptualize the present study, only one study of which we were aware that had examined associations with self-directed violence had examined sexual assault and sexual harassment experiences separately within the same study and found different outcomes associated with each. So our objective here was to more closely examine sexual trauma that occurred during deployment by examining whether different types of sexual trauma during this time period were associated with suicidal ideation. And before I move on I would like to clarify that in the present study we conceptualize sexual trauma in terms of the SAMHSA definition which defines trauma as events experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual functioning and mental, physical, social, emotional, or spiritual well-being. So this is different than the DSM-5 criterion a definition of trauma and I just wanted to include that out there before I proceed. Sexual harassment experiences may or may not meet the latter definition. So our sample was identical to the prior study, however rather than it looking at the overall DRRI sexual harassment score we examine the specific types of behaviors that were included in that scale and whether each exposure type was related to current suicidal ideation. These are our results here. So, exposure to events that involves a more specifically violent component were associated with current suicidal ideation. In contrast exposures characterized by crude remarks, gossip, or being offered sexual special rewards for sex were not associated with suicidal ideation. So it appeared that events that were more in line with sexual assault were associated with current suicidal ideation whereas exposures that would be considered more in line with definitions of harassment generally were not. This figure depicts the mean Becks scale for suicide ideation severity scores based on the presence or absence of exposure to each type of event while deployed as you can see as events increased in terms of the level of violence involve, those exposed and not exposed to each diverged in the severity of their current suicidal ideation. So the bars diverge the most here. These results suggest that not all types of exposures during deployment are related to current suicidal ideation among OEF, OIF veterans in trauma focused, in patient treatment and these results also underscore the importance of assessing for more severe forms of sexual violence that can occur during deployment such as those that correspond more closely to sexual assault. Although events which corresponded more to definitions of sexual harassment generally were not associated with suicidal ideation, I would argue that more research is needed to examine whether sexual harassment is associated with self-directed violence in other samples especially active duty samples. It is possible that sexual harassment could represent a proximal risk factor for suicidal ideation attempt while an individual still in the environment in which it is occurring. And lastly one additional avenue that would be important for future research based on our findings would be too examine whether there are distinct trajectories of self-directing violence associated with different types of sexual trauma.

Next I will present recent findings that further consider the role of gender in the associations between MST and suicidal ideation. So we know that sexual trauma and in particular sexual assault experiences that occur during deployment are associated with suicidal ideation among OES, OIS veterans but what about MST more broadly as measured in the VA so getting back to that poll question, and then what about veterans from various service eras, so expanding it beyond post 911 veterans to veterans who also served prior to that. So Klingensmith and colleagues examined a nationally representative sample of veterans, 21 percent of whom reported that there primary source of health care was the VA and in their sample MST was associated with suicidal ideation in the past two weeks and life time history of suicide attempts. We aim to examine whether those findings extend into veterans in VA care when adjusting for different psychiatric diagnosis and lifetime history of suicide attempts and that was based on the rational that if MST was associated with suicidal ideation when adjusting for suicide attempt history that would have suggest that MST is a particularly robust risk factor for suicidal ideation. We also know that there gender differences in the prevalence and sequelae of MST and that there are notable gender differences in regard to the prevalence of suicidal ideation attempt and suicide death. However research examining whether gender influences the effect of MST on self-directed violence has been limited. Bryan and colleagues published this study last year in which they surveyed college student veterans and service members and they found that the association between sexual assault or unwanted sexual experiences during military service with suicidal ideation was stronger for men than women. So our objective, we are first to examine whether MST as defined and measured within the VA was associate with suicidal ideation among a sample of veterans in VA care adjusting for demographics, combat, psychiatric diagnosis, current negative aspect, and life time history of suicide attempt. In addition we aim to examine whether gender moderated the association between MST and suicidal ideation. Our sample for this study comprised 354 veterans who participated in a research study on the interpersonal psychological theory of suicide and who had been prescreened for military sexual trauma. Participants completed self-report measures of suicidal ideation in the past week, so again the Becks scale for suicidal ideation and then the MSI 28 for negative affect. Information regarding MST, PTSD, and depressive disorders was obtained from electronic medical record reviews and MST information was determined from veteran responses on the standard VA MST screen. So it was positive or negative or declined. Our sample of you look over here to the right was middle aged with a mean age approaching 50, most participants identified as Caucasian and the majority of the sample were men, about 45 percent reported a history if combat exposure and then roughly one third had a diagnosis of PTSD and about half had a depressive disorder documented in their VA medical records. So what did we find? Veterans to screen positive for MST were significantly more likely to report experiencing suicidal ideation in the past week and that was adjusting for PTSD, depressive disorders, negative affect gender and lifetime suicide attempts. We also found that there was a significant interaction between MST and gender, such that the association between MST and suicidal ideation was stronger for men compared to women, that was consistent with findings by Bryan and colleagues with college student veterans using different measures and these findings highlight \_\_\_\_\_ [00:31:10] veterans of continuing to consider the role of gender in this association as we continue efforts to identify who is at most at risk for self-directed violence following MST. Research is also needed to examine whether these results extend beyond suicidal ideation and attempt and whether different processes contribute to and protect against suicidal self-directed violence for men compared to women.

So I would like to acknowledge our systematic review that I discussed earlier, it was conducted in—a few years ago in 2013, since then additional studies have been published in this area and these studies take a more nuanced view of sexual trauma and in my opinion contribute greatly to our understanding of sexual trauma during military service and self-directed violence. These are listed here in case you are interested in learning more about the studies and I also included a reference list at the very end of my presentation. But in particular I would like to highlight the recent findings by Doctor Rachel Kimerling and colleagues so down here at the very bottom in which they examine the association between MST and suicide in a national sample of veterans in VA care. So in this study which was published recently they found that both men and women who screen positive for MST were significantly more likely to die by suicide and that was adjusting for psychiatric diagnosis, medical morbidity, morality, and demographics. So those findings are especially noteworthy in broadening what we know about MST and self-directed violence by focusing on a national sample of veterans, adjusting for both psychiatric conditions and medical morbidity and in particular by examining death by suicide. So as evidence increases in regard to the association between MST and self-directed violence becomes increasingly important that we turn our attention towards understanding potential explanations for this.

So in the next part of my presentation I will describe recent and ongoing efforts to identify processes related to self-directed violence among veterans with a history of MST. So only a few studies have examined processes which relate to self-directed violence among veterans with MST, those that have, typically are focused on psychiatric symptoms which is I think a very logical place to be in and what we know so far is just that different mental health symptoms such as PTSD and depressive symptoms and alcohol use appear to be related to suicidal ideation among MST survivors and that depressive symptoms in particular appear to be most strongly associated with suicidal ideation population. However, other research on military sexual trauma suggests that psychiatric symptoms, while important likely only explain part of that association. So additional explanations are needed to understand why veterans with MST are more likely to report suicidal thoughts and behaviors. MST is associated with a range of interpersonal outcomes including decrease social functioning, lower social support and family dissatisfaction in addition to difficulties with intimate relationships and social readjustment and also by virtue of being perpetrated by another person often a trusted individual, MST is inherently an interpersonal trauma. A leading theory if suicide, the interpersonal psychological theory of suicide proposes that individuals desire suicide when they feel like a burden to others, when they feel like they do not belong thwarted belongingness, and that exposure to painful and provocative events such as trauma causes individuals to acquire the capabilities to actually attempt suicide when they desire to do so. That is depicted down here. So one component of the acquired capability for suicide is proposed to be fearlessness about death and to our knowledge there have been several studies that have looked at this theory and other samples but no studies have applied this theory driven frame work to understanding suicidal thoughts or behaviors among veterans with MST specifically. So our objective with this next study is to examine whether perceived burdensomeness, thwarted belongingness, and fearlessness about death were associated with current suicidal ideation among female veterans exposed to MST. Based on the interpersonal psychological theory we hypothesized that all three of these interpersonal constructs would be related to current suicidal ideations. Our sample comprised 92 female veterans who reported a history of MST when entering voluntary in patient treatment. Participants completed several different self-report questionnaires; the interpersonal needs questionnaire to assess perceptions of burdensomeness and thwarted belongingness, the acquired capability for suicide scale, fearless ness about death subscale, the BSS again as well as the Beck depression inventory and the PCL. As you can see from the table here participants had a mean age of 42 and generally reported symptoms of depression and reported symptoms of PTSD in the severe range which is what you would expect given the setting. So what did we find? Perceived burdensomeness, thwarted belongingness, and fearlessness about death were associated with current suicidal ideation and that was adjusting for depressive symptoms, PTSD symptoms and lifetime history of suicide attempts. However, if you included all the different interpersonal constructs in the same model, thwarted belongingness was no longer a significant correlate of suicidal ideation, so perceived burdensomeness and fearlessness about death were in the final model. Limitations of the present study include the cross sectional design and the clinical acuity of the sample in terms of generalizing these results to MST survivors and other settings however, these results suggest that it is important to assess for perceived burdensomeness and fearlessness about death and to a lesser extent thwarted belongingness when working with female veterans who report MST. Additionally research aimed at understanding ways to mitigate interpersonal psychological processes and treatment will be important. So potential avenues for trying to mitigate some of these processes and treatment could include collaboratively working with patients to determine whether perceived burdensomeness, and feelings of not belonging represent individual drivers of their experiences of self-directed violence and if so working with patients to update their safety plans to include such experiences, for example as warning signs could be meaningful. For veterans who report beliefs about being a burden to others or like they just do not fit in anywhere in society, addressing such beliefs in treatment could be helpful for MST survivors based on our findings. However, ultimately more research is needed in this area and also to examine factors that contribute to interpersonal psychological processes following MST and looking at whether perceptions of fearlessness about death and a perceived burdensomeness change over time after experiencing a trauma.

So next we will focus more on systemic processes and self-directed violence. So the prior studies that we discussed focus on individual level factors such as fearlessness about death and beliefs about being connected with others opposing a burden but this perceptive focuses on processes within an individual rather than considering potentially modifiable processes outside of an individual in the social context in which they exist or in the institution in which MST occurs. Carly Smith and Doctor Jennifer Freyd at the University of Oregon purpose that sexual trauma occurring in an institution which betrays its members trust may be especially harmful. They termed this institutional betrayal and they found that these perceptions of institutional betrayal were associated with more severe trauma related symptoms in a sample of college student women who had experienced sexual assault. We aim to examine the frequency of such perceptions among veterans who had experienced MST and we also aim to examine whether perceptions of institutional betrayal were associated with PTSD symptoms, symptoms of depression, and suicidal ideation and suicide attempt following MST. Our sample for this study was quite a bit smaller; it was 49 veterans who reported a history of MST when we screened them for the study and also during qualitative interviews. Participants completed the institutional betrayal questionnaire in which they indicate the extent to which they perceived that a military institution played a role in the MST by either failing to prevent it, or not responding in a supportive way after the MST. Participants also completed the PCL-5 in regard to the worst trauma that they had experienced in their lifetime as well as the PHQ-9 for depressive symptoms and then finally we administered the self-injurious thoughts and behaviors interview, a slightly modified version to examine suicidal ideation and attempt that occurred following MST. If you look right over here, the table decries a sample comprise 31 women and 18 men with a mean age of 47, the sample was fairly diverse racially and ethnically and at the bottom here you can see that participants have served on a pretty broad range of different service eras. So first we examine the frequency with which participants endures different beliefs about the institutions role in preventing and responding to MST. So participants frequently endorse perceptions that the institution had created, an environment where MST seemed common or more likely to occur and in which reporting the event was difficult. Many also reported that they believed the institution had created an environment where they did not feel valued or where continued membership after MST was difficult. Next we examine whether such perceptions were related to current psychiatric symptoms and self-directed violence after MST. So perceptions of institutional betrayal were significantly associated with more severe symptoms of PTSD and depression and they were also associated with being more likely to attempt suicide following MST. In contrast when we looked at the association between institutional betrayal perception and suicidal ideation that was not significant, it approached significance but was not. Finally, we restricted analysis to veterans who reported that they had experienced sexual assault, so excluding individuals who reported sexual harassment without sexual assault and results were pretty much identical with the exception of PTSD symptoms, so here the association between perceived institutional betrayal and current PTSD symptoms was no longer a significant and it is unknown of that was due to the smaller sample size or due to there legitimately being something different in regards to the type of trauma. So there are some limitations of this study that should be acknowledged, first and foremost it was an initial pilot study conducted with small sample and that precluded us from conducting gender stratified analysis or including covariates in the model, also like the highlight we examined perceptions of the institutions role rather than objectively examining the actual behavior of the institution. And finally the PCL-5 assess participants worst trauma rather than MST necessarily which raises the possibility that PTSD symptoms could have been due to an alternate trauma. For future—I really think of this as more of an initial first step in considering this construct as it relates to MST. I hope that others will examine this, I think future research in this area is needed and in particular with larger samples. It would also be informative to look at how such perceptions relate to treatment seeking and given really expensive DOD initiatives and efforts to implement efforts to prevent sexual trauma and increase resources for reporting it, receiving care in the after math of it, it will be important to examine whether perception of the institution’s role changed over time given these multi-faceted in intensive efforts. So, lastly as we wrap up I would like to summarize what is known; discuss some additional clinical implications, and some avenues for future research. What can we take away from research on MST and self-directed violence? So there is now accumulating evidence that military sexual trauma is associated with suicidal ideation, attempt in suicide. Research suggests that there are distinct outcomes associated with assault and sexual harassment during deployment. There is more research to suggest that sexual assault related to suicidal ideation and more research is needed to elucidate the roll of sexual harassment in self-directed violence. Gender stratified analysis suggest that MST is associated with suicide attempt and suicide death for both men and women, however emerging research suggests that the association between MST and suicidal ideation is stronger for men. And lastly, the association between MST and self-directed violence is significant when adjusting for a fairly broad range of variable such as psychiatric symptoms diagnosis, medical morbidity, combat, and lifetime suicide attempt history suggesting that this association is fairly robust and really underscoring the importance of considering trans diagnostic explanations for this risk. In terms of \_\_\_\_\_ [00:47:02] and self-directed violence among MST survivors, psychiatric symptoms are associated with suicidal ideation among MST survivors but research suggests that male health conditions likely do not fully explain that relationship. Theory driven approaches can be applied to understanding self- directed violence in this population. Any views off from our findings they suggest that that perceived burdensomeness and fearlessness about death are related to suicidal ideation and the female veterans exposed to MST. If we zoom out and take broader view and examine processes germane to the occurrence of MST itself and the after math emerging research suggests that perception of the institutions role in failing to prevent and respond in a supportive manner to MST relate to suicide attempt in the period afterwards but clearly additional research is needed to continue to identify processes that contribute to self-directed violence in this population, in efforts to do so would be strengthened by considering an ecological approach that consider a modifiable person level and systems level processes relating the self -directed violence. So this is a proposed research agenda for continuing to understand self-directed violence among MST survivors and identifying ways to prevent suicide in this population. So first identifying populations of specific processes which explain why MST survivors are at risk is critical. This could entail examining suicide risk and protective factors that are found in other samples of veterans more generally whether those extend to veterans of MST it could also entail looking at whether there are trauma specific risk factors for suicide among MST survivors. Among MST survivors we should also be looking at who is most at risk for suicide, so examining differences by gender, race and ethnicity, service era and setting may be especially important here. Also, looking at when veterans are most at risk relative to when MST occurs, so if we can understand that would aide in implementing more targeted prevention efforts during high risk periods. And then finally research is needed that examines the effectiveness of suicide prevention efforts among MST survivors and whether existing interventions are effective in reducing the self-directed violence in this population or whether additional interventions are needed so this could include conducting research to determine whether we need to adapt existing interventions or develop new ones for this population. This is our very last audience poll.

Molly: Thank you. Pardon me thank you, so for our audience members you do have a final poll question up on your screen at this time and once again I did have to truncate the responses a little bit so I will read through all of the responses. First the question, given what we know about MST and SDV what research would be the most useful for preventing suicide among veterans who have experienced MST. First answer option, examining processes associated with SDV amongst MST survivors Answer option number two, examining which MST survivors are at highest risk for SDV. Option number three, examining when risk for SDV is highest among MST survivors. Answer option four, examining the efficiency of existing interventions for preventing SDV among MST survivors, or finally developing new interventions aimed at preventing SDV among MST survivors. So we will give people some more time again just select one, whichever one is most useful in your opinion. And again I did have to truncate answers options four and five so I will read answer option four again as examination, I am sorry, examining the efficiency—efficacy, let us try that again. Examining the efficacy of existing interventions for preventing SDV among MST survivors and number five is developing new interventions aimed at preventing SDV among MST survivors. It looks about two thirds of our audience has already responded so I am going to go ahead and close this poll out and we will share those result. As you can see we are spread all across the board, we have seven percent responding with answer option number one, 22 percent answer option number two, examining which MST survivors are at highest risk for SDV, 28 percent, examining when risk for SDV is highest among MST survivors, 16 percent, examining the efficacy of existing interventions for preventing SDV among MST survivors, and 28 percent, developing new interventions aimed at preventing SDV among MST survivors. So thank you once again to our respondents and I will turn it over to you for the last section.

Lindsey: Thank you. So it looks like there are several different areas in terms of next steps that focus you as potentially being very useful in important next steps. We have discussed some clinical implications of different studies throughout the presentation today but I would like to briefly highlight them together here. First it is important, clearly, to assess for a military sexual trauma and also to assess for the specific experiences that fall within that doing so in a sensitive way that avoids secondary traumatization and that is also within a therapeutic relationship is essential. Second considering accumulating evidence of veterans with MST are at increased risk for a suicide, assessing suicidal ideation and suicide risk factors within this population is essential I think that was pretty clear from the presentation today. However, research is needed to identify, again which processes drove that risk in this population and what we know suggests that these process might me fairly complex and include a constellation of different processes for different people, so this could include psychiatric symptoms, perceptions of once interpersonal relationships with others as well as beliefs about the institution’s role in the MST and there are likely additional processes that relate to this which needs to be identified though future research. I think a collaborative approach to understanding individual drivers of suicidal thoughts, urges, and behaviors for a given patient is highly recommended and I would like to highlight some different resources that have been developed to address self-directed violence in veterans. So potential interventions include a thorough and careful safety plan, counseling on safe storage practices for lethal means and developing a virtual hope box to remember, help the clients remember their individual reasons for living when they are experiencing distress and suicidal thoughts. Addressing suicidality in high risk patients can be stressful for clinicians and there are quite a few resources available for consultation within the VA. So I wanted to highlight here the suicide prevention coordinators who we were fortunate to be able to consult and work with as VA providers and also the Rocky Mountain MIREEC offers a suicide risk management consultation service that is available for VA providers who would like to consult about an individual patient’s suicide risk and ways to potentially mitigate that risk. And then lastly the veteran’s crisis line as we all know is available to patients. My contact information is above please feel free to send me an email or give me a call if you are interested in talking further or potentially collaborating and if you are interested in continuing the conversation about MST and suicide please stick around after this for a twitter chat that will focus on Q and A. We will be tweeting from the at our MIREEC account after this and you can join the conversation with a hash tag MST suicide. So I promised we would leave some time for questions after this, thank you all for your attention and thank you \_\_\_\_\_ [00:56:08] the seminar.

Molly: Thank you, we do have some good pending questions for anybody who would like to submit a question or comment just use the questions section at the bottom of your go to up in our control panel. The first question that came in, are any studies looking at perpetrator of MST and possible triggers or associations, perhaps regarding combat?

Lindsey: That is a great question, I am not aware off hand of studies that are looking at perpetrators of MST but I think that would be a really important area of research. If anyone is aware of any research that has been published in this area it would be great if you could add it as a comment.

Molly: Thank you. The next question we have, have you found any research on how physical concerns such as chronic pain interact with MST in order to predict or impact suicidal behaviors or suicidal ideation?

Lindsey: I have not, that is another thing that I think would be important to look at. I mean there has been research looking definitely at chronic pain in terms of its relation with self-directed violence in finding that veterans with chronic pain are at elevated risk by doing so within an MST exposed group of veterans I think would be key.

Molly: Thank you, and this person is writing is for clarification, was there a difference between men and women regarding SI?

Lindsey: Can the person clarify, in regard to a specific study or across the studies?

Molly: We will go ahead and ask them to write in for further clarification, in the meantime while we wait for that we can move on to the next one. This is some comments with some questions interwoven. Much good and useful information investigated within this presentation and the suicide rate continues to climb. I suggest we stop trying to avoid work load by finding who is quote, at highest risk and get back to the basics you highlighted that the broken culture of the military that does not respond appropriately when MST occurs. Have you looked at how much correcting this culture would decrease the rate of suicide?

Lindsey: I have not, I am not aware of whether within the DOD they examine that. I personally have not though.

Molly: Thank you and they… oh go ahead.

Lindsey: Oh, sorry, and just to add to that comment, I think that that comment nicely addresses something which I think is absolutely critical for suicide prevention amongst MST survivors which is that to effectively prevent suicide in the population I think it is going to have to involve a really multi-faceted approach, so not just interventions on an individual level but also interventions that are occurring at multiple levels within different institutions.

Molly: Thank you and that person finally wraps up with—also there is a need to look at how much truly integrating behavioral health into primary care will address most of the issues causing loss of hope and suicide. Thank you for those comments.

Lindsey: Molly, would it be okay of we circled back for a second to the question in regard to gender differences in suicidal ideation?

Molly: Absolutely, it says was there a difference between men and women regarding suicidal ideation?

Lindsey: Yeah so, I can speak to the study that we conducted that is presently under review so in that study we looked at whether gender moderated the association between MST and current suicidal ideation and it did so there was a stronger association between MST and current suicidal ideation among men compared to women in that study.

Molly: Thank you and the final pending question, is there any indication that sexual orientation or gender identity are a risk factor for experiencing either MST or SDV within military populations?

Lindsey: That is an excellent question as well. I think there were some researchers here in our Rocky Mountain MIREEC who conducted a systematic review recently in regards to sexual orientation and self-directed violence among veterans and service members and I believe that they found that individuals who identified as a minority in regards to sexual orientation that they were at increased risk for suicidal self-directed violence.

Molly: Thank you. We do have one last minute question that came in. Can you expand what is meant by in trauma—by, in a trauma sensitive manner?

Lindsey: Yeah, so I think what I meant by that is there has been more and more work on trauma informed approaches and for many individuals who come in and when they are asked about sexual trauma sometimes it can be the first time that anyone has ever asked them about that and if it is not asked about in a really sensitive way it has the potential to be re traumatizing to an individual so asking about it very empathically, very compassionately, and with a very open stance is key.

Molly: Great, thank you so much. Do you have any concluding comments that you would like to wrap up with?

Lindsey: I would just like to thank everyone for their attention today and for attending and please feel free to join us for our twitter chat or to email me if you have any additional questions. Thank you so much.

Molly: Excellent, well thank you Doctor Monteith for coming on and lending your expertise to the field and of course thank you to our attendees for joining us and I am going to close out the session now so for our attendees please wait just a second while the feedback survey pops up on your screen and just take a moment to answer those few questions. We do look very closely at your responses and then when you are done with the feedback survey feel free to join the twitter chat. So, thank you so much everybody have a great rest of the day. Thanks Lindsey.

Lindsey: Thank you Molly.

[End of Audio]