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# Associations between disordered eating and intimate partner violence mediated by depression and posttraumatic stress disorder symptoms in a female veteran sample

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## ABSTRACT

**Objective:** This study established a link between intimate partner violence (IPV) and eating disorders (EDs) via mediators of depression and posttraumatic stress disorder (PTSD) symptoms in female veterans.

**Method:** A nationally representative sample of female veterans ( $N = 190$ , Mean age = 48.41 years) completed online surveys assessing IPV and symptoms of depression, PTSD, and EDs, at three time points from 2014 to 2017.

**Results:** Approximately 14.11% of participants met criteria for any ED (7.83% Bulimia Nervosa; 6.28% Binge Eating Disorder), and 49.42% reported lifetime histories of IPV. Eating disorder symptoms were significantly associated with lifetime IPV, PTSD and depression symptoms at the bivariate level. Mediation model results revealed that lifetime IPV was indirectly associated with EDs scores, via PTSD symptoms and depression symptoms.

**Conclusion:** Findings confirmed elevated rates of probable EDs and lifetime IPV among female veterans; significant associations between EDs, lifetime IPV, depression, and PTSD; and mediation of the association between IPV and EDs by PTSD and depression symptoms. Implications for screening, treatment and research are discussed.

## 1. Introduction

Sexual abuse and other adverse experiences, as well as general psychiatric morbidity, have been identified as non-specific risk factors for eating disorders (EDs) [1]. Although previous research on the relation between trauma and EDs focused primarily on childhood sexual abuse, more recent findings have highlighted associations between EDs and a range of trauma exposures, such as adulthood sexual and physical assault, including intimate partner violence (IPV) [2]. IPV involves any behavior in an intimate relationship that causes physical, sexual, or psychological harm. IPV experiences are associated with many long-term negative physical and mental health consequences for female survivors, including chronic pain, gastrointestinal and gynecological symptoms, substance use, depression, suicidality, and posttraumatic stress disorder (PTSD) [3,4]. These outcomes often persist after the abuse has ended and may manifest as poor overall health, poor quality of life, increased injury, and increased healthcare service use [5,6].

There is also evidence to suggest that IPV is particularly prevalent among women with mental health concerns including EDs [7].

There are several possible theoretical and empirical mechanisms for these associations. According to transdiagnostic cognitive-behavioral theory of eating disorders (EDs) [8], there are common maintaining mechanisms across ED diagnoses, including anorexia nervosa (AN), bulimia nervosa (BN), binge eating disorder (BED) and other ED presentations. This theory posits that core ED pathology is high self-evaluation with negative self-cognitions resulting in negative affect and efforts to control weight, shape, and eating. Weight control efforts may lead to restriction and/or binge eating. Binge eating leads to further attempts to manage weight, via dieting/fasting/exercise or purging (e.g., self-induced vomiting or laxative abuse). Mood intolerance is an additional maintaining mechanism, and for some individuals, mood and event triggers of binge eating may be even more salient than over-evaluation of weight and shape [8]. Consistent with this theory, ED behaviors may serve as maladaptive efforts to cope with trauma

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reminders and related depression and PTSD symptoms [2].

Another well-established theory in the literature that is relevant to the association between trauma/abuse and EDs, is the escape theory of binge eating [9]. Binge eating is a behavior involved in several different ED diagnoses including BN and BED. The escape theory posits that ED behaviors, such as bingeing, occur in an attempt to reduce emotional distress related to high levels of negative self-awareness. By narrowing cognitive focus to include only stimuli in the immediate environment, inhibition and self-awareness are reduced, and escape from negative affect is facilitated.

Research involving in-depth interviews with women who self-identified as having EDs revealed that a history of any form of abuse, including childhood abuse and IPV, was the most commonly cited factor motivating ED onset [10]. Participants in this study placed particular emphasis on the negative emotional impacts of abuse, suggesting that ED behaviors may function as a mechanism for escaping negative affect associated with traumatic experiences such as IPV.

In samples of both women and men, associations have been found between EDs and increased lifetime prevalence of IPV [11]. For example, in a nationally representative U.S. sample, Mitchell and colleagues found elevated rates of physical IPV among women with AN (21.8%), BN (33.2%), and BED (24.9%) compared to women without EDs (12.9%) [2]. Several potential mechanisms underlying this association have been examined in the literature, many of which are consistent with theoretical models of ED onset and maintenance outlined above. For example, a qualitative study conducted with female IPV survivors revealed several themes regarding the relationship between disordered eating and IPV. Commonly described patterns included: modifying eating habits to avoid abuse, experiencing gastrointestinal symptoms in response to abuse, using food as an emotion regulation strategy for coping with the psychological effects of abuse, using food as a means of self-harm following abuse, and using eating as a means of retaliating against an abuser [12]. There is also evidence to suggest that sexual abuse by an intimate partner may directly impact one's body image [13], and psychological abuse within intimate relationships has been linked to body shame both directly, and indirectly through cognitive and behavioral factors such as self-objectification and body surveillance, in female survivors [14].

Additionally, PTSD and/or depression symptoms are often comorbid with EDs and IPV, and may contribute independently to the association between them. As noted above, female IPV victims reported using eating as an emotion regulation strategy. Further, PTSD has been found to mediate the relationship between sexual trauma and EDs, particularly through physiological arousal and social avoidance [15]. Among a sample of African-American and African-Caribbean women, participants with a history of IPV were more likely to report disordered eating than those without a history of IPV, and depression and PTSD symptoms, respectively, mediated this association [16]. ED behavior may, therefore, be a means of managing negative self-cognitions and affective distress experienced by individuals following IPV, consistent with cognitive-behavioral theories of ED development and maintenance [8,9].

The association between IPV and EDs is particularly relevant to veteran samples, as female veterans have high rates of lifetime IPV. In a nationally representative US sample, rates of IPV were 33.0% among female veterans compared to 23.8% among non-veteran women [17]. Further, although EDs are somewhat understudied among veterans, preliminary findings suggest that veterans may be at increased risk for EDs, partly due to high rates of trauma experienced by this population [18]. A recent study found that past-year physical, sexual, and psychological IPV were associated with ED symptoms in a nationally representative sample of male veterans and a sample of female Department of Veterans Affairs (VA) patients [19]. Associations have also been found among female veterans between IPV and mental health

symptoms, including PTSD and depression [20]. Additionally, veterans with EDs have been found to have higher rates of depression and PTSD than those without EDs [21], and associations have been found across the lifespan between EDs, PTSD, and sexual trauma in female VA patients [22].

In summary, consistent with cognitive-behavioral theories of ED etiology and maintenance [8,9], ED behaviors may be maladaptive efforts to cope with adverse reactions to trauma, including IPV [2]. However, relatively few studies have examined mechanisms of the association between IPV and EDs [13–16]. Additionally, there are a limited number of studies examining the relationships between these variables in veteran samples, despite the fact that female veterans have elevated lifetime IPV rates [17] and are also at increased risk for EDs [18]. Therefore, the current study seeks to expand the literature and fill these gaps by examining the direct impact of IPV on ED symptoms, as well as the mediating effects of depression and PTSD symptoms, in a longitudinal cohort of female Veterans.

## 2. Methods

### 2.1. Participants and procedures

The current study utilized data from the Women Veterans and IPV-related Care Survey, a national study of female veterans conducted at three time points between November 5, 2014 and January 8, 2017. The original study was planned as cross-sectional assessment of women's preferences for IPV care [23], but was later expanded to assess mental health symptoms at two additional time points (described below). Participants completed web-based surveys administered by the GfK survey research firm.

GfK maintains the KnowledgePanel®, a probability-based, non-volunteer access survey panel of 55,000 U.S. adults that is representative of approximately 97% of U.S. households. Participants are provided with computers and internet access (if needed) and receive points for completing surveys that can be redeemed for cash or prizes. All female veteran participants in KnowledgePanel® received an e-mail providing them with information about this study and inviting them to participate in an online survey. The introduction to the study provided critical elements of informed consent (i.e., subject matter, expected time commitment, risks and benefits, voluntary nature of study participation, ability to skip items). Participants were considered to provide online informed consent if they initiated the survey. Duplicate participation was not possible as participant's unique identifying numbers for the KnowledgePanel® prevent completing a survey more than once. Participant identities are not revealed to researchers. This study was approved by the local Institutional Review Board (IRB).

At the time of the initial 30-minute survey (Time 1; T1) the KnowledgePanel® included 548 female veterans, 411 of whom consented to participate in the current study (75% response rate). Subsequent 60-minute surveys targeted women who completed the T1 survey and were still enrolled in the KnowledgePanel® at 18-months (Time 2; T2) and 24-months (Time 3; T3) after T1. At T2, there were 330 eligible women still enrolled in the KnowledgePanel®, 266 of whom elected to continue participating (81% response rate for eligible participants; 65% of T1 participants). At T3, there were 261 eligible women still enrolled, and 190 participated in the survey (73% response rate for eligible participants; 71% of T2 participants). Women who participated in all three time points did not differ on T1 demographic characteristics (i.e., age, race) or exposure to combat or military sexual trauma (MST) compared to women who did not complete all three time points. The current study sample includes 190 women who completed surveys at all three time points.

## 2.2. Measures

**2.2.1. The T1 survey assessed a variety of sociodemographic and military-related variables (age, race/ethnicity, employment status, income, education level, military branch, length of military service)**

Combat exposure was assessed with a dichotomous (yes/no) question, and MST history was assessed with two questions inquiring about sexual harassment and sexual assault experiences during military service. A positive endorsement of either of these items was used to indicate history of MST. Combat exposure and MST were evaluated for inclusion as covariates in the models.

**2.2.2. Past-year and lifetime IPV experiences were assessed at T1 using the Humiliate/Afraid/Rape/Kick (HARK) screening tool [24]**

The HARK includes 4 items that inquire about experiences of physical, sexual and psychological IPV. In the current study, women completed the HARK with respect to experiences occurring in the past year and 'prior to the past year' (referred to here as lifetime IPV). The sexual IPV and emotional mistreatment items were modified to provide more inclusive and behaviorally-specific definitions, removing the words "abuse" and "rape." Any lifetime IPV was used as the independent variable in our mediation models.

**2.2.3. The 10-item version of the original Center for Epidemiological Studies-Depression Scale [25] (CES-D-10 [26]) was used to assess depressive symptoms at T2**

Participants were asked to evaluate a series of depressive symptoms (e.g., feeling sad, blue, hopeless) they may have experienced over the past week. Both the original and abbreviated versions of the CES-D have demonstrated acceptable convergent and concurrent validity [25,27]. Participant responses on CES-D-10 items were summed, with higher scores indicating higher levels of depression symptoms. Scores  $\geq 10$  indicate a possible diagnosis of depression. We calculated the percentage of participants meeting this cutoff for descriptive purposes. Total CES-D-10 scores were used to evaluate depression symptoms as a potential mediator of the association between IPV and EDs. Cronbach's alpha for the CES-D-10 was 0.90 in the current study.

**2.2.4. PTSD symptoms were assessed using the 20-item PTSD Checklist-5 (PCL-5) at T2 [28]**

The PCL-5 is a self-report measure of current DSM-5 PTSD symptoms [29]. Prior validation research has shown strong psychometric properties, including convergent and discriminant validity as well as reliability [30]. Using a 5-point scale, participants were asked to identify problems or behaviors occurring over the past month as a result of experiencing a traumatic event in the past. Responses were summed to create a total score, with higher scores indicating greater levels of PTSD symptoms. A cut-point score of 33 has been recommended for use as an indicator of a possible PTSD diagnosis [28]. Total scores were used to evaluate PTSD symptoms as a potential mediator of the association between IPV and EDs. Cronbach's alpha was 0.98 in the current study.

**2.2.5. ED symptoms were assessed using the Eating Disorder Diagnostic Scale (EDDS) at T3 [31]**

The EDDS is a 21-item self-report measure assessing a broad range of ED symptoms occurring over the past three months [31]. Scores can be used to create a composite score or probable diagnoses, and the EDDS has been found to have high test-retest reliability ( $r = 0.87$ ) and criterion-related and convergent validity [31]. Participant responses at T3 were summed to create a total score, with higher scores indicating more severe ED symptoms. DSM-5 [29] ED diagnoses were also calculated, for descriptive purposes. Cronbach's alpha for total EDDS scores was 0.88 in the current study.

## 2.3. Statistical analyses

Descriptive statistics were computed using SAS 9.4. SAS survey procedures were used to apply sample weights. GfK computes post-stratification weights based on demographic characteristics, including age, gender, race/ethnicity, education, census region, and metropolitan area of US veterans in their KnowledgePanel®. Weighted results allow us to make inferences about female veterans in the U.S. PROC SURVEYFREQ was used to calculate frequencies, and SURVEYREG was used to assess bivariate associations among combat exposure, MST, PCL, CES-D-10, IPV, and EDDS scores.

Mediation models were estimated using path analysis in Mplus 7.0 [32]. These models were weighted as well. Variables included in models were lifetime IPV at T1, PCL or CES-D-10 scores at T2, and EDDS scores at T3. Bootstrapping is recommended to test the significance of a mediating effect, as this approach is one of the most valid and powerful [33]. Specifically, unlike other approaches, bootstrapping does not make assumptions about the shape of the distribution of the indirect effect, and calculation of a standard error is not required to determine significance. Thus, to test the significance of the indirect effects from IPV to ED symptoms via PTSD and depression symptoms, respectively, we calculated 5000 bootstrap draws to create 95% confidence intervals. PTSD and depression symptoms were assessed as mediators in separate models, due to their high correlation ( $r = 0.81$ ). Models were adjusted for age and body mass index (BMI), given their strong associations with EDs [34]. Associations between MST and combat, respectively, and ED symptoms were evaluated to determine whether to adjust for these variables as well.

## 3. Results

### 3.1. Descriptives

No participants met criteria for anorexia nervosa (AN) at T3; 7.83% (weighted) met probable criteria for bulimia nervosa (BN), 6.28% (weighted) met probable criteria for binge eating disorder (BED), and 14.11% (weighted) met probable criteria for any ED. Nearly half (49.42%) reported a lifetime history of IPV at T1. At T2, 11.63% exceeded the cut-point score on the PCL, and 32.09% exceeded the cut-point score on the CES-D-10.

Participants' average age at T3 was 54.06 ( $SD = 14.00$ ), and their average BMI was 29.44 ( $SD = 7.86$ ). The majority had completed some college (43.40%) or earned at least a bachelor's degree (39.65%). Participant racial/ethnic breakdown was as follows: White, non-Hispanic (70.16%), Black, non-Hispanic (18.98%), other race, non-Hispanic (0.46%), Latinx/Hispanic (6.83%),  $\geq 2$  races, non-Hispanic (3.56%). The majority of the sample was married (52.59%) or divorced (25.02%).

EDDS scores were significantly associated with lifetime IPV ( $B = 6.21$ ,  $T = 2.25$ ,  $p = 0.03$ ), PCL scores ( $B = 0.37$ ,  $T = 4.20$ ,  $p \leq 0.001$ ), and CES-D-10 scores ( $B = 0.59$ ,  $T = 5.45$ ,  $p \leq 0.001$ ). Combat exposure was not associated with EDDS scores ( $B = -0.11$ ,  $T = -0.03$ ,  $p = 0.97$ ); however, participants with histories of MST had higher EDDS scores relative to those who did not ( $B = 5.89$ ,  $T = 2.20$ ,  $p = 0.03$ ). Thus, mediation models adjusted for MST, age, and BMI.

### 3.2. Mediation analyses

Mediation model results are presented in Table 1. Associations between T1 lifetime IPV and EDDS scores became non-significant in multivariable models. However, T1 lifetime IPV was indirectly associated with T3 EDDS scores, via T2 PCL scores (see Fig. 1). In addition, T1 lifetime IPV was indirectly associated with T3 EDDS scores, via T2 CES-D-10 scores (see Fig. 2).

**Table 1**

Associations between intimate partner violence and eating disorder symptoms, with posttraumatic stress disorder and depression symptoms as mediators.

Path	b	$\beta$	SE	p	R <sup>2</sup>	95% CI
<b>Any IPV</b>						
T1 IPV → T2 PCL scores → T3 EDDS scores						
T1 IPV → T2 PCL scores (a)	7.15	0.23	2.27	0.002	0.05	2.71, 11.60
T2 PCL scores → T3 EDDS scores (b)	0.31	0.36	0.06	< 0.001	–	0.19, 0.43
T1 IPV → T3 EDDS scores (c)	2.48	0.09	1.96	0.21	0.30	–1.35, 6.32
T1 IPV → T2 PCL scores → T3 EDDS scores (ab)	2.23	0.08	0.69	0.001	–	0.87, 3.58
<b>Physical IPV</b>						
T1 IPV → T2 CES-D-10 scores → T3 EDDS scores						
T1 IPV → T2 CES-D-10 scores (a)	4.07	0.19	1.60	0.01	0.04	0.93, 7.21
T2 CES-D-10 scores → T3 EDDS scores (b)	0.49	0.40	0.08	< 0.001	–	0.33, 0.66
T1 IPV → T3 EDDS scores (c)	2.25	0.08	1.90	0.24	0.33	–1.48, 5.98
T1 IPV → T2 CES-D-10 scores → T3 EDDS scores (ab)	2.00	0.08	0.81	0.01	–	0.40, 3.59

Note: T1 = time 1, T2 = time 2, T3 = time 3, IPV = intimate partner violence, PCL = Posttraumatic Stress Disorder Checklist-5, EDDS = Eating Disorder Diagnostic Scale, CES-D-10 = 10-item Center for Epidemiological Studies-Depression scale, SE = standard error, CI = confidence interval.

a = direct path from IPV to the mediator, b = direct path from the mediator to EDDS scores, c = direct path from IPV to EDDS scores, ab = indirect effect from IPV to EDDS scores via the mediator.

Models adjusted for age, body mass index, and exposure to military sexual trauma.

**4. Discussion**

In our sample of female veterans, ED symptoms were significantly associated with lifetime IPV as well as depression and PTSD symptoms. These results are consistent with past research revealing significant comorbidity between EDs and IPV as well as a variety of psychiatric conditions, including depression and PTSD [1–7,10,11,35,36]. In mediation models, however, the direct association between lifetime IPV and ED symptoms became non-significant. Rather, IPV, assessed at T1, was associated with T3 ED symptoms via both T2 PTSD and depression symptoms. These results are consistent with past research demonstrating that PTSD and depression symptoms mediate the relationship between IPV and EDs [15,16], suggesting that psychological symptoms are at least partly responsible for the IPV-ED association. Consistent with the transdiagnostic theory of EDs and the escape theory of binge eating [8,9], a possible explanation for these findings is that ED symptoms function as a maladaptive coping mechanism for negative self-cognitions and affective distress experienced in the aftermath of IPV.

While 14.11% of our sample met probable ED criteria for either BN or BED, no participants met probable criteria for AN. This could be due in part to the low lifetime prevalence of AN compared to BN and BED [34]. Although our outcome measure assessed symptoms of AN, BN, and BED, it is important to consider that existing research evidence suggests trauma and PTSD are more commonly associated with EDs involving binge eating and purging symptoms (i.e. BN, BED) than those involving restricting symptoms (i.e. AN) [36].

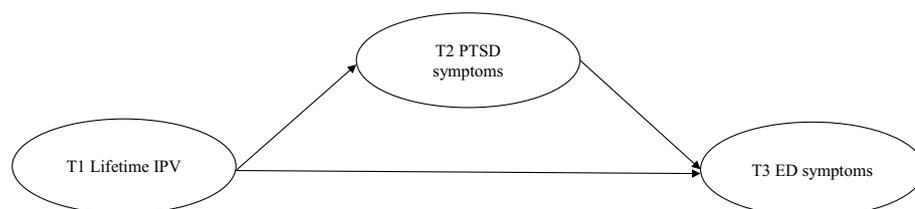
In this nationally representative sample of female veterans, a high proportion of participants experienced IPV as well as EDs; 49.42% of the sample reported a lifetime history of IPV. The proportion of women who reported lifetime IPV in the current sample was higher than that reported in previous research examining both female veterans and female civilians, where rates were found to be 33% and 23.8% respectively [17]. This may be due, in part, to our use of the HARK screening tool. The HARK is less commonly used in existing research and also includes two items assessing psychological aggression, as well as

physical and sexual IPV. Physical and sexual IPV were the focus of a prior IPV prevalence study among Veterans that reported a lower prevalence estimate of IPV [17]. Similarly, the rate of probable EDs reported in the current sample is higher than ED rates reported in previous research examining female veterans in less representative samples, which range from 2.8% to 10.6% [37,38]. These findings suggest that female veterans have elevated rates of disordered eating; however, it should be noted that our results were based on self-reported ED symptoms and corresponding probable ED diagnoses, which could have resulted in overestimation of ED symptoms [39].

Though previous research suggests that aspects of military life and culture may contribute to increased risk for ED development [18,21,40], combat exposure was not found to be significantly associated with EDDS scores in the current sample. However, participants with a history of MST had higher EDDS scores relative to those who did not. These findings are consistent with previous research demonstrating high rates of interpersonal trauma among individuals with EDs [2]. Future research should seek to further clarify and explore the relationship between specific trauma subtypes and EDs.

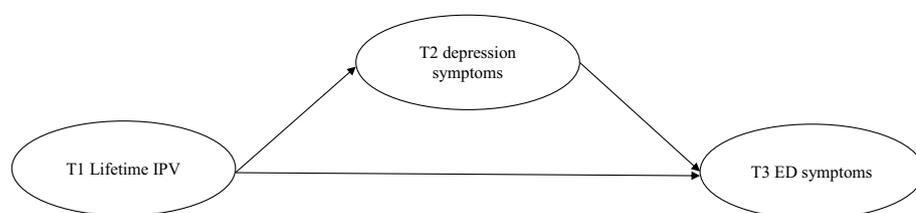
Findings should be considered in the context of several limitations. One limitation is the use of self-report measures collected via online surveys. It is possible the self-report measures used in this study may have over-estimated IPV and ED symptoms relative to other studies [39]. Additionally, although the sample used in the current study was nationally representative of the female veteran population, the generalizability may be limited by the relatively small sample size. Just under half (46%) of the women who participated in T1 completed all 3 time points. Of note, there were no differences in demographic characteristics among women who completed all three surveys compared to those who did not. It is possible that women who completed only T1 differed from those who completed all three time points in terms of ED symptoms; however, this study did not assess ED symptoms at T1.

Another limitation of the current study is the inability to conduct fully longitudinal mediation analyses since all measures were not completed by participants at each time point, as the T1 survey was designed for a different purpose [23]. Future research should replicate



**Fig. 1.** Association between lifetime intimate partner violence and eating disorder symptoms with posttraumatic stress disorder symptoms as a mediator.

Note: T1 = time 1, T2 = time 2, T3 = time 3, IPV = intimate partner violence, PTSD = posttraumatic stress disorder, ED = eating disorder. Models adjusted for T3 age, body mass index, and exposure to military sexual trauma.



**Fig. 2.** Association between lifetime intimate partner violence and eating disorder symptoms with depression symptoms as a mediator.

Note: T1 = time 1, T2 = time 2, T3 = time 3, IPV = intimate partner violence, ED = eating disorder. Models adjusted for T3 age, body mass index, and exposure to military sexual trauma.

and extend the current findings in prospective studies. Additionally, future studies should include male veteran participants, as they are traditionally understudied in IPV and ED research, and it is unclear how well the current findings would generalize to men. There is some existing evidence suggesting that associations between trauma, EDs, and psychiatric comorbidity extend to males in the general population [36]. Finally, we did not test a comprehensive theoretical model of EDs and therefore did not include additional risk factors and comorbidities other than PTSD and depression. Future investigations of comprehensive models of IPV and EDs would be beneficial to the field.

The current study adds to the growing body of literature examining the nature of the relationship between IPV and EDs, which are known to be associated with each other [2,10,11], as well as a variety of other negative medical and mental health outcomes [3,4,35]. These long-term negative consequences often result in poor overall health, poor quality of life, and increased healthcare service use [5,6,41]. Combined with prior literature, the current findings suggest that increased attention to and screening for IPV and EDs in healthcare settings, including primary care, is warranted. EDs in particular are often undetected in medical settings [42] despite the fact that individuals with EDs are high users of a variety of healthcare services [43]. Targeted screening for EDs among patients known to be at increased risk due to the presence of other comorbid conditions, including PTSD and depression, could be a helpful strategy to increase ED detection and treatment. In addition, there is a need for integrated treatments that address EDs and comorbid symptoms, in this case PTSD and depression symptoms related to trauma exposure. Although Cognitive Behavioral Therapy-Enhanced (CBT-E) for EDs, which is based on the transdiagnostic theory of EDs [8], focuses on cognitive and mood-related triggers of ED behaviors, it does not specifically address trauma history.

This study further extended the literature by examining the relationship between IPV and EDs in a veteran population, as these individuals are somewhat understudied and may be at increased risk for EDs due in part to high rates of trauma exposure [18]. Currently, there is no national program for ED screening within the Department of Veterans Affairs (VA) and few VA medical centers have evidence-based ED treatment programs. However, VA has been working to train provider teams in CBT-E, which is a promising effort for treating veterans with EDs.

VA has national screening programs for IPV, depression, and PTSD and also offers several evidence-based treatments for both depression and PTSD. This existing framework allows for the opportunity to incorporate targeted ED screening among veterans who are known to have experienced IPV and those who are receiving treatment for PTSD and/or depression, and are thus at elevated risk of having an ED. Improved detection of EDs through the use of routine screening is a first step towards identifying the scope of the need for evidence-based ED treatment programs throughout the VA system.

In summary, increased screening for IPV and EDs in primary care and other medical settings has the potential to improve rates of detection and thus facilitate access to appropriate and effective treatment and reduce negative long-term health outcomes. Additionally, targeted screening among populations known to be at increased risk could further facilitate these goals. As more primary care settings are integrating mental health and social work services into models of care, our findings have clear relevance for screening and treatment in these settings. One

specific area to consider for future research would be the potential to improve ED symptoms among individuals who have experienced IPV via treatment of comorbid conditions such as PTSD and depression. It may also be possible to improve symptoms of comorbid conditions via targeted ED treatment, particularly if ED behaviors are functioning as coping strategies for psychological distress associated with past trauma. Finally, future research should continue to elucidate the specific mechanisms underlying the association between IPV and EDs in order to provide more targeted treatments and continue improving outcomes.

#### Declaration of interest

The authors do not have any competing interests to disclose.

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