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Women Veterans' Treatment Preferences for Disordered Eating

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Abstract

Objective: Disordered eating, which includes subclinical and clinical maladaptive eating behaviors, is common among women, including those served by the Veterans Health Administration (VA). We used qualitative methods to determine whether and how women veterans want to receive treatment for disordered eating.

Method: Women veterans participated in one of seven focus groups/interviews and completed in-person demographic and psychological questionnaires. We used thematic analysis of focus groups/interviews to understand preferences for disordered eating treatment.

Results: Participants (N=20) were mostly women of color (55%); mean age was 48 (SD= 15) and 65% had significant psychological symptoms. Few participants described being assessed for disordered eating, but all thought VA should provide treatment for disordered eating. Through thematic analysis, we identified six preferences: 1) Treatment for disordered eating should be provided in groups; 2) Treatment for disordered eating should provide concrete skills to facilitate the transition out of structured military environments; 3) Treatment for disordered eating should address the relationship between eating and mental health; 4) Disordered eating can be treated with mindfulness and cognitive behavior therapy; 5) Disordered eating treatment providers should be experienced and take an interactive approach to care, but can come from diverse disciplines; and 6) Referrals to treatment for disordered eating should be open-ended, occur early, and allow for ongoing, flexible access to treatment.

Conclusions: Women veterans are interested in treatment for disordered eating. Preferences align with existing treatments, could be offered in conjunction with weight loss or primary care services, and should provide social support and interactive learning.

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Introduction

Clinical eating disorders are relatively rare among women in the general population; rates range from 0.9% to 3.5% (Hudson, Hiripi, Pope Jr, & Kessler, 2007). Disordered eating is more common, affecting between 5.9% to 27.7% of women (Hilbert, de Zwaan, & Braehler, 2012; Mangweth-Matzek, Hoek, & Pope, 2014). Disordered eating is more common than clinical eating disorders because it represents a spectrum of maladaptive eating behaviors, ranging from infrequent binge eating, purging, and/or dietary restriction to behaviors associated with clinical eating disorder diagnoses (e.g., weekly bingeing, purging, and/or dietary restriction).

Disordered eating is particularly common among individuals who are overweight or obese (Spitzer et al., 1993). Given that more than two thirds of the US population is overweight/obese (Ogden, Carroll, Kit, & Flegal, 2014), treating disordered eating, as opposed to solely focusing on clinical eating disorders, is a public health concern (Puhl, Neumark-Sztainer, Austin, Luedicke, & King, 2014). Treating disordered eating is of special importance to veterans served by the Veterans Health Administration (VA). A recent systematic review found prevalence estimates of disordered eating among veteran and military men and women to be comparable to or higher than prevalence estimates for the general population (Bartlett & Mitchell, 2015). At the extreme end of the spectrum, one included study found that almost 80% of the thousands of participants in VA's weight loss program report disordered eating (Higgins et al., 2013).

There are several evidence-based treatments for clinical eating disorders, including cognitive behavior therapy (CBT) and interpersonal therapy, that show promise for treating subclinical eating disorders, (a form of disordered eating; (Kass, Kolko, & Wilfley, 2013)). There is also evidence, from a recent systematic review, that mindfulness-based treatments reduce disordered eating, including binge eating and emotional eating (Katterman, Kleinman, Hood, Nackers, & Corsica, 2014). VA provides mental healthcare, which, depending on facility, may include these and other disordered eating-related treatments. In addition, roughly 20 VA residential programs provide inpatient eating disorder treatment secondary to treatment for other conditions (Personal Communication, Dr. Deleene S. Menefee). However, there are no national data available on how many VA clinicians specialize in disordered eating.

Despite the high prevalence of disordered eating among veterans and existing and viable treatment options, to our knowledge, no research describes veterans' disordered eating treatment preferences. Such information is important given the millions of veterans treated within and outside VA. Treatment preferences in non-veteran clinical populations seem to be related to individual understandings of disordered eating – in one study, individuals who viewed their primary problem as an eating disorder were more likely to be interested in CBT for eating disorders whereas those who conceptualized their problem as being overweight were equally interested in a behavioral weight loss treatment or CBT for eating disorders (Brody, Masheb, & Grilo, 2005). However, veterans' disordered eating treatment preferences may differ from the general population's because veterans have different life experiences and comorbid conditions. For example, post-traumatic stress disorder (PTSD) prevalence is

higher in veteran than civilian populations (Norris & Slone, 2013), and both trauma (Hoerster et al., 2015; Mason et al., 2014) and combat exposure (Jacobson et al., 2009) are associated with disordered eating.

The aim of this study was to describe women veterans' disordered eating treatment preferences. While women and men engage in disordered eating, we focused on women because military and veteran women are often more likely to be diagnosed with and report disordered eating (Bartlett & Mitchell, 2015; Frayne et al., 2014). Given the nascent nature of this research, we used qualitative methods to identify treatment preferences and to provide context for *why* participants preferred certain treatments.

Materials and Methods

Research Team.

The research team consisted of six women with experience conducting women's health research in VA: 1) a bachelor's level research assistant, 2) two doctoral candidates in clinical psychology (one was a military veteran); 3) an anthropologist, and 4) two psychologists (one senior psychologist and one postdoctoral fellow). The latter three had experience with qualitative methods. Both psychologists had experience treating disordered eating. No study staff had prior relationships with participants.

Recruitment and consent.

We used homogeneous sampling, a common strategy to improve the comfort level of participants during focus group discussions (David L Morgan, 1996), to recruit women veterans between the ages of 18 and 70 who reported changing their eating habits in response to stress, recent weight gain, and/or interest in healthier eating habits. Participants were recruited though a combination of flyers at the local VA and at local colleges, and referrals from mental health clinicians who provided researchers with contact information for potential participants who agreed to be contacted by study staff. We excluded women diagnosed with a severe mental illness (SMI; i.e., schizophrenia, psychosis) because they likely have different needs that were outside the scope of this study (Goldberg et al., 2013); however, preferences of women with SMI is an important area of inquiry for future work.

Women who called and were interested in the study verbally consented to a phone screen (conducted by the doctoral candidates) to assess eligibility. Eligible women participated in focus groups or dyadic interviews after signing written consent forms that informed them that the purpose of the study was to learn how experiences during deployment can impact a person's eating behaviors and that results would be used to improve the evaluation and treatment offered to veterans. In order to obtain naturalistic responses and to avoid stigmatizing women who did not consider themselves eating disordered, participants were not educated about disordered eating at any point during phone screens, focus groups, or interviews. Women were paid $30 for their participation. All procedures were approved by an Institutional Review Board and a VA Human Research Protection Program. [*Author note: Add institution names here*].

Data collection.

This study was mainly designed as a qualitative study, however, we used quantitative measures to provide descriptive information about participants and to stimulate discussion during focus groups/interviews (participants completed all measures during a break, before answering focus group/interview questions related to treatment preferences).

Qualitative Measures.

Focus Groups and Dyadic Interviews.—Between April 2013 and October 2014, two researchers (the senior psychologist and a doctoral candidate) moderated five focus groups at an urban VA medical center. The research assistant was also present to take notes, but did not speak. Focus group size ranged from three to five participants. The same staff also conducted two dyadic interviews in the same location, which were the result of only two participants attending scheduled focus groups. Dyadic interviews share many factors with focus groups (e.g., participant interaction), while at the same time allowing for more data collection from each participant (D. L. Morgan, Ataie, Carder, & Hoffman, 2013). While dyadic interviews were not part of the original research plan, they enhanced data by allowing participants to provide more in-depth responses to questions. Focus groups/interviews were populated on a first-come, first-served basis.

The same semi-structured interview guide was used for focus groups and interviews. Topics included military service and eating, stress and eating, early eating habits, and disordered eating treatment preferences related to treatment format, treatment content, preferred providers and the referral process. (See Appendix A for questions related to treatment preferences, which were the focus of analyses.) The guide was developed with input from disordered eating and qualitative experts and was not developed within a particular theoretical framework. Focus groups/interviews lasted roughly two hours and were audio recorded and transcribed verbatim by a professional transcription service. Staff present during a given group/interview met afterwards to highlight key points. They also took notes during and after each group/interview, using those notes to summarize discussions and document saturation of themes.

Quantitative Measures.

Disordered eating treatment preferences.—Participants rated the helpfulness of treatments for “veterans who might struggle with eating and who have also had stressful and traumatic experiences” on the following Likert scale: extremely unhelpful (1); somewhat unhelpful (2); neither helpful nor unhelpful (3); helpful (4); extremely helpful (5).

Disordered eating behaviors—*Possible anorexia and bulimia nervosa diagnoses* were assessed with the SCOFF questionnaire (J. F. Morgan, Reid, & Lacey, 2000), a five-item, yes/no measure of core eating disorder symptoms (e.g., “Do you believe yourself to be fat when others say you are thin?”). Items are summed (yes=1, no=0); individuals with scores ≥2 have a possible diagnosis of anorexia or bulimia nervosa. *Eating in response to stress* was assessed with the unpublished Eating Tendencies Measure, which included specific items related to military stress (e.g., “How do you tend to eat when you are reminded of upsetting

experiences from your military experience?"). Items were rated on a scale from 1 (much less than usual) to 5 (much more than usual).

Psychological symptoms.—*PTSD symptoms* were assessed with The PTSD Checklist – Military (PCL-M; Wilkins, Lang, & Norman, 2011), a 17-item measure in which individuals rate PTSD symptoms, over the past month, on a scale from 1 (not at all) to 5 (extremely). PCL-M items are summed with scores between 17–33, 34–43, and 44–85 indicating low, moderate and high post-traumatic stress, respectively. *Depression symptoms* were assessed with the Patient Health Questionnaire–2 (PHQ-2; Kroenke, Spitzer, & Williams, 2003), a two-item measure in which participants rate anhedonia and depressed mood over the past two weeks on a scale from 0 (not at all) to 3 (nearly every day); scores ≥3 suggest a possible depressive disorder.

Military stressors.—*Exposure to military service stressors* was assessed with eight, yes/no questions regarding common military stressors (e.g., "During your military service did you become wounded or injured?" or "During your military service, did anyone use force, threat of force, or coerce you to have sex against your will?").

Sociodemographic information.—Participants completed a questionnaire regarding age, gender, race, ethnicity, employment, income, marital and living status, number of children, and military history.

Qualitative Analysis.

Two authors (the postdoctoral fellow and a doctoral candidate *[Author note: Replace with initials]*) conducted a thematic analysis (Braun & Clarke, 2006) of focus group/interview data to answer the following research question: What are women veterans' disordered eating treatment preferences? The authors completed two coding cycles as described by Miles, Huberman, and Saldaña (2014). In the first cycle, they used provisional coding, reviewing portions of transcripts related to treatment preference questions (see Appendix A) and applying researcher generated codes based on interview guide domains (e.g., group treatment, mindfulness). Both authors reviewed all transcripts and, in cases of disagreement during discussions, consulted a third author (the staff psychologist [*Author note: Replace with initials*]) until consensus. In the second coding cycle, they grouped references to codes into four categories: treatment format, treatment content, treatment providers, and the referral process. Next, the authors reviewed quotes in these categories to identify themes within each category focusing on frequency and salience of topics. The authors coded by committee (Saldaña, 2015) throughout this process, meeting several times with the senior psychologist to discuss the coding process, discrepancies, and preliminary findings. The authors also checked for differences among focus groups and interviews, finding few. Differences included more talk time for each participant in interviews and some minor differences in the amount of time spent discussing certain topics across groups/interviews (e.g., anger). Participants were not asked to provide feedback on transcripts or findings.

Quantitative Analysis.

The authors used Microsoft Office Excel to obtain descriptive statistics for self-report measures.

Results

Twenty-six women were screened for participation, one woman was excluded due to a schizophrenia diagnosis and five eligible women declined to participate due to scheduling conflicts or disinterest in the group format. Therefore, a total of 20 women participated, with one identifying as a transgender woman. The mean age was 48 years (SD= 15) and most participants were women of color (55%). Table 1 provides additional information on participants' characteristics.

All participants reported some form of disordered eating. The majority of participants (70%) met cut-offs for possible clinical eating disorder diagnoses on the SCOFF and 15 participants (75%) reported worrying about having "lost control" over how much they ate. All participants described changing their eating (i.e., eating more or less) in response to stress. In addition, all participants reported at least one military service stressor on the exposure to military service stressors scale. Seventeen participants (81%) reported sexual trauma during their time in the military. Over half of participants met cut-offs for probable PTSD (65%), possible depression (55%), or both (65%) as measured by the PCL-M and PHQ-2, respectively.

On the treatment preferences questionnaire, participants rated almost all suggestions as "helpful" or "extremely helpful." Responses matched those given during focus groups/ interviews, for example, most participants preferred women-only exercise groups (60%) or wanted the option of women-only groups (10%) and others thought having primary care physicians assess disordered eating after discharge from the military would be "helpful."

Most women reported not being asked about disordered eating before. However, we identified six themes highlighting preferences for treatment of disordered eating among women veterans, described below with illustrative quotations. See Table 2 for additional quotations. It is important to note that we use the phrase "disordered eating" in themes for clarity. Participants did not use the phrase "disordered eating," which was described in focus groups as "problems with eating and food," and which may explain why participants seemed to conflate eating and weight problems.

Theme 1: Treatment for disordered eating should be provided in groups.

Almost all participants preferred a group format for disordered eating treatment, ideally a woman-only group. Reasons for preferring a group format included the comradery and non-judgmental atmosphere fostered by such settings. For example, one participant noted "…it is easier to keep commitments to someone else…" (Participant 2, Interview). Being in a group may also feel familiar to military veterans, possibly recreating the unit dynamic of working towards a common mission. Furthermore, several participants described feeling more accountable when participating in group treatments, as one woman said, "[You don't] want

to let people down" (Participant 4, Interview). Others noted the importance of the competition found in group settings:

> When I lost all my weight I was competing with one of my girlfriends and I noticed in the military we loved competition and that is why our weight loss works better when we are in a group…
>
> (Participant 15, Focus Group)

Participants agreed that groups also facilitated buddy systems that made change more fun, which may explain why participants said they wanted to contact group members outside of treatment settings (e.g., via Facebook). Participants also said that group settings provided time for individuals to get comfortable with the therapeutic process without requiring the constant and active participation demanded by individual treatment.

While the overall preference was for groups, some noted that individual sessions can be helpful (e.g., by providing personalized help when recovering from minor setbacks). In addition, a few women described the benefits of surgical treatment for weight loss or wanted treatment to include technological components (e.g., apps).

Theme 2: Treatment for disordered eating should provide concrete skills to facilitate the transition out of structured military environments.

Participants wanted concrete behavioral information to help them navigate the difficult transition from military to civilian life. They noted that veterans often enter the military at a young age and, therefore, upon leaving, do not know the basics of how to shop, cook, and eat as a civilian. They preferred interactive treatment content on this topic, for example, hands-on demonstrations of cooking, recipe sharing, grocery shopping, and physical activity. Participants also wanted to learn how to eat healthfully on a budget as free/low-cost food is provided in many military environments. Given the topics of interest (and the preference for a group format), several participants noted that treatment for disordered eating could occur within VA's weight loss program, MOVE!. However, as one participant noted, weight loss is not a "cure all" and treatments for disordered eating should not necessarily be described as weight loss programs (Participant 10, Interview).

Theme 3: Treatment for disordered eating should address the relationship between eating and mental health.

Participants described several facets of mental health that could be related to eating and should therefore be included in treatments for disordered eating. For example, women emphasized that treatment should include information on mental health issues directly related to eating, such as eating disorders and food addiction. Participants also thought treatments should include information on the connection between eating and more general "psychological things" (Participant 10, Interview), such as the link between food addiction and substance abuse or the link between trauma, eating, and anger. While several groups discussed anger, one group's discussion was particularly focused on how managing anger could help one manage disordered eating. As one woman said, it was important to learn how "to express their anger…so if they get confronted they could be in self-control mode and… do things more responsibly" (Participant 14, Focus Group). Another group thought treatment

content should focus on helping individuals cope with low self-esteem and fat stigma. In addition to wanting information on how mental health affects eating, a minority of participants wanted information on how specific foods affect mental health.

Interestingly, while participants said that treatment for disordered eating could be combined with health promotion treatments, most participants agreed that they did not want information about eating provided during other mental health treatments, for example, one woman said that in groups for other disorders:

> There's just so much going on that to try and throw in food, I think it would mess with the trying to recuperate from certain other things.
>
> (Participant 3, Focus Group)

Participants also noted that pain and "other issues" can prevent participation in treatments for disordered eating. As a result, some participants were willing to combine treating disordered eating with some other topics and/or modalities (e.g., smoking cessation).

Theme 4: Disordered eating can be treated with mindfulness and CBT.

When asked about several treatments that might be used to treat disordered eating (see Appendix A), participants felt that mindfulness could treat disordered eating regardless of whether the topic of the treatment was disordered eating (e.g., one participant described the applicability of mindfully eating a raisin, a common beginning mindfulness exercise in mindfulness treatments for many disorders, to eating in general). However, participants also noted that despite the potential benefits of mindfulness, it can be hard to convince some veterans to use mindfulness techniques because veterans with PTSD often have decreased attention spans and/or diminished trust. As one woman said, "[veterans] don't trust outsiders…they are not going to close their eyes in a full room especially around a bunch of strangers…" (Participant 1, Focus Group), suggesting that mindfulness treatments may need veteran-specific outreach methods.

Several participants also reported positive experiences with CBT and believed that CBT would be helpful in the context of disordered eating. CBT relies on many of the techniques participants in this study thought would be particularly helpful in treating disordered eating, including homework, continual practice, self-monitoring, problem solving, and goal setting (e.g., Specific Measurable Attainable Relevant Timely [SMART] goals). For example, one woman described the way that the CBT technique of self-monitoring helped her identify unhealthy, irregular eating patterns:

> …I started writing things down and that was really helpful because I never did [that before] and [I saw] what my pattern was…[I learned that] I didn't eat breakfast a lot and I skipped meals and I need a lot more vegetables...
>
> (Participant 10, Focus Group)

Theme 5: Disordered eating treatment providers should be experienced and take an interactive approach to care, but can come from diverse disciplines.

Participants preferred that providers participate in interactive components of care (e.g., exercise). They also wanted providers to have personal experience with disordered eating or weight loss. As one woman noted, it might also be easier to receive a referral (i.e., have someone tell them that they have a problem) from a provider who has also "had her battles with weight" (Participant 15, Focus Group). Some participants also preferred providers with specific professional experiences, for example, providers experienced with treating trauma, even if that was not their primary role (e.g., physical therapists who specialized in working with trauma survivors).

Most participants did not express preferences for a particular type of provider and instead described four disciplines that could treat disordered eating. First, primary care physicians, who could provide positive reinforcement about engaging in treatment. Second, psychologists, who could be particularly helpful in teaching mindfulness techniques. Third, nutritionists/dieticians, who could provide useful information on basic nutrition and the self-monitoring of diet and exercise. Several participants reported positive experiences with nutritionists/dieticians, however, others did not want additional counseling on nutrition facts, suggesting that assistance with behavior change was more relevant. As one woman said:

> And this fact of sending us to dieticians, I think it is worthless… we all can read and we all can look at TV and we focus on health and portions and all of that, but we don't do it.
>
> (Participant 13, Focus Group)

Fourth, participants thought peer specialists, who had personal experience with disordered eating or weight loss, could lead treatments. They thought peer specialists could enhance motivation to initiate and maintain treatment (e.g., through the buddy system discussed above) and share their experiences to provide support and credibility to treatment content that might make veterans feel "intimidated" (Participant 1, Focus Group), such as mindfulness.

Theme 6: Referrals to treatment for disordered eating should be open-ended, occur early, and allow for ongoing, flexible access to treatment.

Participants wanted to be asked open-ended questions about their eating before being referred for treatment. One woman said, providers should ask "what I think about [eating problems]" (Participant 1, Focus Group). In addition, participants did not like closed-ended questions, like checkbox questions (see Table 2), which they felt were impersonal and desensitizing for providers and patients. Some noted that close-ended methods could be applied in a pre-visit questionnaire that might help providers understand patients' needs as long as closed-ended questions were followed by open-ended questions asked by a provider during a visit.

With regard to timing, some participants thought assessment should begin during basic military training so that disordered eating could be caught early and tracked over time. Several other participants noted that military exit interviews with primary care physicians

were an ideal time to assess disordered eating and offer assistance related to the transition to civilian life, but that attendance at treatments should not be required because “you want to be free” (Participant 11, Focus Group) from rules and regulations when leaving the military.

Participants thought treatment could be described as optional during military exit interviews, with the caveat that veterans can return for help with disordered eating at any time. One participant noted that it would be helpful to tell exiting servicewomen that they might not see eating problems until “15 years down the road” (Participant 7, Focus Group), but that they should be able to return for help at that time. Participants felt this was particularly important because poor follow-up from providers about previously offered treatments prevents veterans from accessing available services.

Discussion

We conducted a thematic analysis of focus group/interview transcripts and identified six disordered eating treatment preferences among women veterans. First, participants preferred treatment in women-only groups due to the comradery, competition and non-judgmental atmosphere fostered by such settings. Second, they wanted treatments to help them transition out of military life by providing interactive information on how to shop, cook, and eat as a civilian. Third, while participants wanted treatments to cover relationships between eating and mental health, most did not want treatments for disordered eating to be given during treatments for other mental health conditions. Fourth, participants thought that mindfulness and CBT could treat disordered eating. Fifth, they preferred providers with personal and/or professional experience with eating, weight, obesity stigma, or trauma who participate in interactive components of care (e.g., exercise), but had few preferences regarding providers’ disciplines. Sixth, participants preferred a routine, but flexible referral process that starts early and is based on open-ended questions and down the road options.

These findings suggest several ways that existing eating-related treatments could be applied or modified to address disordered eating among women veterans. For example, participants’ interest in mindfulness to treat disordered eating matches a recent systematic review, which found that mindfulness-based treatments can reduce disordered eating, including subclinical binge eating and emotional eating (Katterman et al., 2014). In addition, participants’ preferences matched many components of a gold standard eating disorder treatment: CBT for eating disorders (National Institute for Health and Clinical Excellence, 2004). As desired by participants in this study, CBT for eating disorders focuses on helping patients learn new behaviors to control their eating. In fact, the primary focus of CBT for eating disorders is helping patients maintain a pattern of regular eating (three meals and two snacks every day). This focus fits the needs of the many participants who described an association between irregular patterns of eating and unwanted weight gain. Further, several women also reported wanting information on the relationship between mood/emotion and disordered eating, which fits with a fundamental goal of all CBT treatments: to better understand the relationships among thoughts, emotions, and behaviors and use that information to improve quality of life. The match between participants’ treatment preferences and CBT for eating disorders suggests that women VA users may be likely to engage in treatments based on CBT for eating disorders.

It is notable that participants said a variety of treatments could be helpful in treating disordered eating. Indeed, they rated almost all treatment options as helpful on questionnaires. This finding may be due to demand characteristics or the fact that many women described past positive experiences with these treatments. Another possible explanation is that women in this study tended to conflate weight, weight loss, and disordered eating. Past work found disordered eating treatment preferences related to participants' conceptualizations of their presenting problem (i.e., as related to weight or as related to disordered eating) (Brody et al., 2005). As such, the conflation of eating and weight disorders among participants in this study may have made them amendable to a wider variety of treatments than found in past research.

Participants' conflation of weight, weight loss, and disordered eating is a limitation of the current study as it was not always clear whether participants were describing preferences related to weight loss treatment versus treatment for disordered eating, which may have affected analyses. The conflation of these issues is clinically important as it may be a common practice on the part of patients, which could mask potentially life-threatening eating disorders. Therefore, clinicians should carefully assess these domains separately during clinical encounters and offer psychoeducation as needed. At the same time, given that conflating weight and eating behaviors is both logical and consistent with participants' desire for combined weight loss and disordered eating treatment, it is unlikely to undermine the integrity of our interpretations.

Other limitations include a focus on women at single VA, many of whom may have mental health disorders. Further, given that group treatments are common in VA, participants may have been more open to this type of treatment. In addition, participants completed a questionnaire listing several possible treatments for disordered eating, including CBT and mindfulness, before discussing treatment preferences, which may have biased answers. However, the questionnaire provided a range of possible treatments, ameliorating this concern. Further, given that women veterans are a high-risk group for disordered eating we believe that, despite these limitations, the results of our work merit reporting.

Implications for Practice

Our results suggest that women veterans want treatment for disordered eating and are amenable to being asked about associated symptoms. Addressing this preference is a complicated task for clinicians. Some participants preferred open-ended questions whereas others would be satisfied with questionnaires followed by discussion. One option is to use electronic health record-based alerting systems to prompt clinicians to ask open-ended questions about disordered eating. However, such approaches may lead to clinician burn out (Hysong, Spitzmuller, Espadas, Sittig, & Singh, 2014). Another option is a brief self-report screening measure, which could be used either in primary care for individuals who screen positive for other mental health conditions (given high rates of comorbidity) or during intakes for mental health programs. In addition, health care systems may need to increase the number of providers trained in treating disordered eating in order to meet any demand raised by improved screening. This has potential policy implications given that the number of current VA mental health providers specializing in disordered eating is unknown.

With regard to treatment types, our findings suggest that women veterans' preferences fit within empirically supported treatments (e.g., CBT or mindfulness) and within existing VA systems. Participants' preferred group treatments, which VA usually provides. Similarly, as participants noted, treatment for disordered eating could fit within MOVE!, VA's behavioral weight loss program. Given that MOVE! is provided in a group format over several weeks, it may be possible to augment MOVE! or other behavioral weight loss treatments with disordered eating modules, for example, including a session on mindful eating or asking participants to track disordered eating. Such an approach has not been tested among veterans, but could reduce disordered eating. Given that some individuals who engage in disordered eating may not want or require weight loss treatment, another treatment option, which has shown some promise in prior studies, is treating disordered eating within integrated care settings (Grilo, White, Masheb, & Gueorguieva, 2015). VA's patient centered medical home program is the largest integrated care setting in the nation and could facilitate seamless care for those with medical and psychological issues.

Future work

Results suggest several avenues of future work, including testing the hypotheses that women veterans are more likely to engage in disordered eating treatments in group formats or when delivered by peers. Similarly, work is needed to determine whether adding treatment for disordered eating to behavioral weight loss programs, like MOVE!, results in better engagement and/or improved outcomes when compared to standard care. Future work should also determine the best ways to screen for disordered eating (e.g., whether it is more effective to have clinicians conduct screening or to conduct online screenings that automatically notify clinicians of actionable results). Finally, future work must include men. At least one study suggests that men veterans are more likely to report disordered eating than women veterans (Higgins et al., 2013) and men may have different treatment preferences (Robertson et al., 2015). Further, there is reason to believe that stigma and the perception of disordered eating as a "women's" problem could lead men to underreport disordered eating (Bartlett & Mitchell, 2015), suggesting that disordered eating among men may be a larger public health concern than currently understood.

Conclusions

Disordered eating, which includes clinical eating disorders and subclinical maladaptive eating behaviors, distresses women veterans. This paper provides important preliminary information on evaluation and treatment preferences for disordered eating in this population. Namely, women veterans are interested in receiving treatment for disordered eating that aligns with existing treatments, like cognitive behavior therapy and mindfulness. They prefer these treatments conducted in women-only, group settings that allow for social support and interactive learning. It may be particularly important for disordered eating treatments to focus on the transition out of structured military environments as well as eating behaviors associated with civilian life. In addition, treatment for disordered eating should not take place during treatments for other mental health conditions, but can be offered by a wide range of clinicians, providing they have the requisite expereince. Additional work is needed to confirm these findings and determine best practices for assessment, triage, and treatment

of disordered eating among the millions of women and men veterans treated within and outside VA.

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Appendix A

Focus Group Questions Regarding the Treatment of Disordered Eating

1. We'd like to shift a little bit and talk about the kinds of help that veterans can get for problems with food and eating. What kinds of care are available?
    a. Probe for: their experiences with counseling, primary care, etc. related to eating; explore if VA or non-VA care
2. What do you think would be the best way to help veterans deal with some of their problems with food and eating?
    a. Probe for: ways to deal with stress and eating.
3. Now, think back to our discussion about eating and stress, what kinds of things can help in difficult or challenging situations?
    a. Probe for: their help-seeking behaviors formal and informal; things that helped them.
4. We'd now like to get your thoughts about how to help veterans who might struggle with eating and who have also had stressful and traumatic experiences. These questions are about your current experiences with food, as well as how to best ask about and provide care for veterans with similar experiences.

What are your thoughts about:

1. Your primary care physician asking you about problems with food and eating after discharge from the military?
2. Being asked about problems with food and eating when getting help for emotional or psychological problems in a mental health setting (e.g. in a PTSD clinic or another similar place)?
3. A group that teaches you how to eat with greater awareness, including awareness of your bodily sensations and emotional state? We'll call this mindful eating [group for mindful eating].

4. What about a group that helps you identify the relationship between your thoughts, emotions, and eating behaviors, and helps you make eating changes that you can practice, we'll call this CBT? [CBT for eating]
5. What about putting mindful eating and/or CBT into individual care for things like PTSD or MST or care for traumatic experiences.
6. How about putting mindful eating and/or CBT into groups for PTSD, MST or other groups for trauma?
7. What about putting mindful eating and/or CBT into individual care for alcohol or drug use?
8. Or putting mindful eating and CBT into groups for alcohol and drug use?
9. What about counseling (dieticians) for diet and nutrition?
10. Or exercise groups? Please specify: women only or mixed?
11. How about cooking classes?
12. Any other ideas that you'd like to share?

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Table 1

Participant characteristics

	N	%
Race		
White	9	45%
Black	4	20%
Asian-American	1	5%
Other	6	30%
Education		
Some college	5	25%
Associates degree	8	40%
College graduate	3	15%
Master's Degree	3	15%
Doctoral Degree	1	5%
Marital Status		
Never Married	9	45%
Married	2	10%
Divorced	9	45%
Have children	10	50%
Living situation*		
Living on own	8	40%
Living with spouse and partner	2	10%
Living with friends	2	10%
Living with parents/family of origin	1	5%
Living with roommates or housemates	2	10%
Staying with people temporarily	1	5%
Other	3	15%
Employment**		
Full time	2	10%
Part time	1	5%
Looking for work	3	15%
VA service connection	10	50%
SSI/SSDI	2	10%
In school	2	10%
Retired	4	20%
Household income		
Under $10,000	2	10%
$10,000–25,000	7	35%
$25,001–50,000	7	35%
$50,0001–75,000	3	15%
$75,001–100,000	1	5%
Have private health insurance	6	30%

	N	%
VA service connection [**¥]		
Yes	15	75%
Pending	10	50%
Service branch		
Air Force	4	20%
Army	9	45%
Navy	6	30%
Coast Guard	1	5%
Past Active Duty		
Yes	17	85%
Deployed to war zone		
Yes[±]	9	45%

SSI/SSDI: Supplemental Security Income/Social Security Disability Insurance

[*] One participant did not complete this question

[**] Not mutually exclusive

[¥] VA service connection is a designation that provides veterans with subsidized VA care (e.g., reduced or no copayments) for conditions related to their military service.

[±] Participants were deployed to a war zone for a mean of 8.67 months (SD=2.66).

Table 2

Quotations illustrating themes related to women veterans' treatment preferences for disordered eating

Category	Theme	Sample Quotes Explaining the Preference
Treatment Format	Treatment for disordered eating should be provided in groups	[groups work because]…**it is easier to keep commitments to someone else than it is [to] ourselves** because we are more forgiving about our faults…when [I] derail [alone, I think], I've derailed so I can keep eating whatever, but **if I commit to [someone], [I think] she is just going to be disappointed I didn't keep committed, [so] even though I didn't keep my commitment [today] I can still keep my commitment for tomorrow**... (Participant 2, Interview) I think just **being in [a] group has helped me enormously. Being able to talk to other people from the same background is really necessary.** Because I mean if I were to sit down with some of my [non-veteran] girlfriends and talk about this they wouldn't have a clue. (Participant 12, Focus Group)
Treatment Content	Treatment for disordered eating should provide concrete skills to facilitate the transition out of structured military environments	**I was 17 when I [enlisted]…and I wasn't wanting to be in the kitchen and cook… now I have a real interest in learning how to cook** [to improve my health]. (Participant 5, Focus Group) **[We need to learn] planning and scheduling…because [in the military] you are just expected to be there…you don't have a choice so your food is going to be there** and you are going to be there; that is just how it is…Schedule-wise I was horrible after I got out of the military because [I never chose my own schedule before]. (Participant 11, Focus Group)
	Treatment for disordered eating should address the relationship between eating and mental health	…a topic [of a group could be:] **Self-esteem for people that are overweight, maybe underweight too…how do you feel about yourself?** How do you think others view you? (Participant 10, Interview) [I want to know] **how to eat if you're full of anxiety** and you know you want one of those candy bars… how do you deal with that? (Participant 3, Focus Group)
	Disordered eating can be treated with mindfulness and CBT	…**mindful walking when you are just concentrating on your breath or taking a step or just diverting your attention from the actual eating process** or concentrating on the actual eating then **[mindfulness] might just bring you back and focus [you] on what you are actually eating**...[it] would be beneficial either way. (Participant 2, Interview) **I love that whole idea of the CBT** and all that… really [having] to stop and think what happens when I get angry, what happens before I get angry; so **to actually sit and think about how do I feel when I eat**... if there were more little things like that that we could just figure out…instead of having to figure out through thousands of calories…that would be awesome. (Participant 15, Focus Group)
Treatment Providers	Disordered eating treatment providers should be experienced and take an interactive approach to care, but can come from diverse disciplines	…one of the things I love about my female doctor…[is that] she is coming from a perspective of **somebody who fully understands what I am dealing with**…(Participant 18, Focus Group) …**I'm more hands on [and interactive]…my mind wanders**

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Category	Theme	Sample Quotes Explaining the Preference
		when [providers] are [just] talking or lecturing. (Participant 3, Focus Group)
The referral process	Referrals to treatments for disordered should be open-ended, occur early, and allow for ongoing, flexible access to treatment.	…**I don't think [veterans] should be forced to go to any [treatment].** It should be totally up to them and I think it should be given to them as an option. Like, okay, I understand you want to go home right now. That is the most important thing to you, but **next week when you're feeling a little out of place why don't you come back and check out this group**. (Participant 3, Focus Group) I think that **asking, "do you have any questions about what your diet is like and how about diet transitioning? I know it is hard or it must be different." [would be helpful]… it is more conversational** than [checkboxes]…because you kind of get de-sensitized with all those check boxes. (Participant 10, Focus Group)