

Psychology of Men & Masculinities

Traditional Masculinity Ideology, Posttraumatic Stress Disorder (PTSD) Symptom Severity, and Treatment in Service Members and Veterans: A Systematic Review

Elizabeth C. Neilson, R. Sonia Singh, Kelly L. Harper, and Ellen J. Teng

Online First Publication, January 27, 2020. <http://dx.doi.org/10.1037/men0000257>

CITATION

Neilson, E. C., Singh, R. S., Harper, K. L., & Teng, E. J. (2020, January 27). Traditional Masculinity Ideology, Posttraumatic Stress Disorder (PTSD) Symptom Severity, and Treatment in Service Members and Veterans: A Systematic Review. *Psychology of Men & Masculinities*. Advance online publication. <http://dx.doi.org/10.1037/men0000257>

Traditional Masculinity Ideology, Posttraumatic Stress Disorder (PTSD) Symptom Severity, and Treatment in Service Members and Veterans: A Systematic Review

Elizabeth C. Neilson

Michael E. DeBakey Veterans Affairs Medical Center, Houston, Texas, and Morehead State University

R. Sonia Singh

Michael E. DeBakey Veterans Affairs Medical Center, Houston, Texas, and Central Arkansas Veterans Healthcare System, Little Rock, Arkansas

Kelly L. Harper

Michael E. DeBakey Veterans Affairs Medical Center, Houston, Texas, and The National Center for PTSD at Veteran Affairs Boston Healthcare System, Boston, Massachusetts

Ellen J. Teng

Michael E. DeBakey Veterans Affairs Medical Center, Houston, Texas, and Baylor College of Medicine

Veterans receive messages to conform to aspects of traditional masculinity through both the broader culture and military culture. Theoretical and empirical evidence suggest that adherence to traditional masculinity negatively impacts veterans' PTSD severity and treatment engagement. The present article reviews the literature and synthesizes research findings utilizing both qualitative and quantitative methods. This review focuses on the associations between traditional masculinity and PTSD severity and treatment engagement. Findings suggest that endorsement of a traditional masculinity ideology creates a culture in which experiencing a traumatic event is emasculating. Overall, endorsing beliefs and behaviors that conform to traditional masculinity ideology and experiencing gender role strain are associated with posttraumatic stress disorder (PTSD) severity and PTSD-related constructs. In particular, emotional stoicism and stigmatizing one's emotions are associated with greater PTSD severity and difficulties with functioning. This review also provides recommendations for future research directions and clinical interventions.

Public Significance Statement

A systematic review of traditional masculinity ideology—beliefs regarding the importance of men's conformity to masculine norms—and PTSD among veterans and service members found that veterans' expectations that men control and restrict their emotions were associated with PTSD symptoms severity. Trauma-exposed veterans may also engage in hypermasculine behaviors to reaffirm their sense of masculinity. Future research may benefit from more clear definitions and additional assessments of masculinity and PTSD.

Keywords: masculinity, masculine role strain, PTSD, trauma, veterans

© Elizabeth C. Neilson, Michael E. DeBakey Veterans Affairs Medical Center, Houston, Texas, and Department of Psychology, Morehead State University; R. Sonia Singh, Michael E. DeBakey Veterans Affairs Medical Center, Houston, Texas, and Central Arkansas Veterans Healthcare System, Little Rock, Arkansas; Kelly L. Harper, Michael E. DeBakey Veterans Affairs Medical Center, Houston, Texas, and The National Center for PTSD at Veteran Affairs Boston Healthcare System, Boston, Massachusetts; Ellen J. Teng, Michael E. DeBakey Veterans Affairs Medical Center, Houston, Texas, and Menninger Department of Psychiatry and Behavioral Sciences, Baylor College of Medicine.

The authors report no financial conflicts of interest. This material is based upon work supported in part by the Department of Veterans

Affairs, and the Center for Innovative Treatment of Anxiety and Stress of the Mental Health Care Line at the Michael E. DeBakey Veterans Affairs Medical Center. The views expressed in this article are those of the author(s) and do not necessarily reflect the views, position, or policy of the Department of Veterans Affairs, the South Central Mental Illness Research, Education, and Clinical Center, or the United States government. The conceptualization and results of the current review have not been disseminated before this publication by any of the listed authors.

Correspondence concerning this article should be addressed to Elizabeth C. Neilson, Department of Psychology, Morehead State University, 515 4th Street, Suite 414, Morehead, KY 40351. E-mail: ecneilson@moreheadstate.edu

Posttraumatic stress disorder (PTSD) within veteran populations has staggering individual and societal costs (Ahmadian, Neylan, Metzler, & Cohen, 2019; Tanielian & Jaycox, 2008; Vogt et al., 2017). PTSD rates vary based on sampling and measurement; however, between 2% and 17% of veterans report combat-related PTSD (Richardson, Frueh, & Acierno, 2010), and as many as 11% to 45% of recently returning veterans meet the diagnostic criteria for PTSD (Helmer et al., 2007; Richardson et al., 2010; Tanielian & Jaycox, 2008). Despite the availability of evidence-based treatments for PTSD, many veterans may not seek PTSD treatment, terminate treatment before completion (e.g., “dropout”), or do not benefit from treatment to the same extent as their civilian peers (for review, see Haagen, Smid, Knipscheer, & Kleber, 2015; Hundt et al., 2018; Vogt, 2011; Watts et al., 2013).

Endorsement of traditional masculinity ideology and conformity to masculine norms have emerged as predictors of veterans’ mental health and engagement in psychotherapy services (American Psychological Association [APA], 2018; Garcia, Finley, Lorber, & Jakupcak, 2011; Morrison, 2012; Scheinfeld, Rochlen, & Russell, 2017). Masculinity ideologies refer to beliefs regarding the importance placed on men to adhere to culturally defined standards and norms for men (Pleck, Sonenstein, & Ku, 1993; Thompson & Pleck, 1995). Although there is no singular traditional masculinity ideology, traditional masculinity ideology within many Western cultures emphasizes achievement, toughness and emotional control, and antifemininity, while prohibiting appearances of weakness including expression of vulnerable emotions and seeking help (Levant & Richmond, 2008; Pleck, 1995). Although most members of a society are exposed to aspects of traditional masculinity, veterans are also socialized into military culture, which emphasizes many aspects of traditional masculine ideology, particularly emotional stoicism and autonomy (Abraham, Cheney, & Curran, 2017). Evidence-based treatments for PTSD involve the disclosure and processing of fear, shame, and guilt—emotions that are considered antithetical to traditional masculinity (e.g., fear and shame). Thus, veterans’ adherence to traditional masculinity ideologies may influence their experience of PTSD symptoms, decisions to seek help, and treatment completion and efficacy.

Although previous reviews have found that traditional masculinity ideology is associated with poorer mental health functioning (Wong, Ho, Wang, & Miller, 2017), no previous review has focused exclusively on the association between traditional masculine ideologies and PTSD among veterans. The following review of the literature examines traditional masculinity as a predictor of PTSD symptom severity and treatment efficacy, engagement, and dropout within Veteran populations.

Traditional Masculinity Ideology

Gender refers to the psychological, social, and cultural experiences and characteristics associated with women and girls and men and boys (APA, 2018). Gender also includes the social beliefs, norms, and stereotypes about the behavior, cognitions, and emotions associated with each gender (Pleck, 1995). Essential to contemporary theories of gender is that gender is something one does or performs within a cultural context, rather than something they have or possess (West & Zimmerman, 1987). The qualities and behaviors that are considered male (or masculine) and female (or feminine) are actively constructed by their social and historical

context and thus shift and change across culture and time (Kimmel & Messner, 2001). Masculinity is thus a “socially constructed gender ideal for men and male roles” (Thompson & Pleck, 1995). One’s conformity to those ideals assesses the degree to which one engages in behaviors consistent with masculine norms and roles. Contemporary Western culture has typically defined masculinity and femininity as orthogonal constructs (Bem, 1974), with masculinity encompassing traits such as strength, independence, ambition, authoritative leadership, and rationality (Thomas, 2001), whereas femininity encompasses traits such as care, sensitivity, dependence, and emotion (Thomas, 2001). Gender socialization is a lifelong, dynamic process through which one is introduced to societal constructions and expectations of gender and involves both implicit and explicit instructions for gender (Garside & Klimes-Dougan, 2002; Lawson, Crouter, & McHale, 2015).

Gender intersects with multiple identities, including but not exclusive to race, ethnicity, sexual orientation, age, and economic status, resulting in a variety of masculinity ideologies (APA, 2018). Thompson and Pleck (1986) described a profile of the traditional masculinity ideology within Western culture consisting of status (drive to achieve and gain others’ respect), toughness (emotional, mental, and physical fortitude and self-reliance), and antifemininity (avoidance of stereotypically feminine activities and roles). One type of masculinity ideology, hegemonic masculinity, encompasses patterns of behaviors and beliefs consistent with traditional masculinity ideology that legitimize and maintain men’s dominance over women (for review, see APA, 2018; Connell & Messerschmidt, 2005). Hegemonic masculinity constructs masculinity as rigidly adhering to values, beliefs, and behaviors of masculinity and avoidance of values, beliefs, and behaviors socially defined as feminine (Connell & Messerschmidt, 2005). Central to hegemonic masculinity is that the adoption of behaviors and emotions stereotypically characterized as feminine carries a threat to one’s masculinity. Kimmel (1997) argued that men may be motivated to engage in stereotypical behavior due to a need to prove their masculinity and status as men to others. For example, men may act in stereotypically masculine behaviors, such as aggression, in an attempt to reaffirm their gender status when it is threatened (Bosson, Vandello, Burnaford, Weaver, & Arzu Wasti, 2009).

Men endorsing traditional masculinity ideology experience different forms of gender role strain (i.e., discrepancy strain, dysfunction strain, and trauma strain; Pleck, 1995). Men who place importance on conforming to traditional masculinity ideology may experience psychological distress when they fail to meet male role expectations (discrepancy strain). Discrepancy strain may also be conceptualized and referred to as gender role stress (Eisler & Skidmore, 1987) wherein one experiences distress when one fails to meet the personal and social expectations of masculinity. Men can experience psychological distress or negative consequences as a result of fulfilling masculine role expectations (dysfunction strain). Finally, men may also experience distress during the masculine socialization process, such as being told to “man up” when experiencing sadness (trauma strain; Pleck, 1995).

Masculinity and Military Culture

Members of the military receive implicit and explicit messages that normalize, reinforce, and/or instill traditional values of masculinity. Military culture is multidimensional and consists of the

organization with its formal structure, a cultural group governed by norms, and a social group that transacts with its members' identities (Atuel & Castro, 2018; Tajfel, 1982). The structure, norms, and social identities are united around values of strength, resilience, courage, and personal sacrifice, which are often tied to an underlying "warrior culture" or identity (Bryan & Morrow, 2011). The hierarchy in which service members are organized dictates appropriate behavior, defines service members' relationships with each other, and identifies service members' roles within the larger military structure. Individuals who deviate from their prescribed place are typically punished, either formally or informally (Atuel & Castro, 2018).

Theoretical and empirical reviews have found that the military may socialize members to conform to traditional masculine practices (Abraham et al., 2017). Military personnel report high levels of conformity to traditional masculine norms, such as emotional control, self-reliance, and primacy of work and status (Jakupcak, Osborne, Michael, Cook, & McFall, 2006). Combat experiences, in particular, may emphasize self-reliance, emotional control, and concealment of perceived weakness (Eckerlin, Kovalesky, & Jakupcak, 2016). Although these values can promote self-confidence and skill-building (Swain, 2016), the emphasis on mental toughness and self-reliance, even in the face of physical or mental injury, can create an environment in which these injuries are seen as weakness.

Traditional gender norms may inform how veterans respond to traumatic experiences. Traumatic experiences, including combat trauma, prompt feelings of powerlessness and hopelessness that are antithetical to the societal expectation that men are powerful and in control. Thus, traumatic experiences may contribute to discrepancy strain of gender role strain. Sexual assault, including military sexual trauma (MST), also defies the expectation for men to display sexual dominance and power. Male victims may feel their status as "real men" has been lost after sexual trauma (Elder, Domino, Mata-Galán, & Kilmartin, 2017). The emphasis on emotional control, autonomy, and denigration of help-seeking may also be barriers to treatment engagement and conflict with PTSD treatments that involve experiencing and processing painful, emotional experiences (Foa & Kozak, 1986; Resick, Monson, & Chard, 2016).

Masculinity and PTSD Treatment

This constellation of traits and behaviors associated with a traditional masculinity ideology offers potentially relevant implications for psychotherapy treatment engagement and processes. Men who endorse traditional masculinity ideologies, including those consistent with hegemonic masculinity, may be less likely to engage in help-seeking or convey interdependence. Thus, men who endorse traditional masculinity ideology may be less likely to engage in mental health treatment, which requires seeking help for concerns one is unable to manage alone (for review, see APA, 2018). Men who endorse traditional masculinity ideologies may also avoid or reject behaviors that are socially constructed as feminine, including the expression of emotions such as sadness and fear. Avoidance of emotional expression may thus influence the processes within therapy, which can include the processing, expression, and discussion of emotion and related cognitions.

Specific to veterans, returning Iraq war veterans (for example, Operation Iraqi Freedom [OIF]) have reported that primary barriers

to seeking mental health treatment include concerns that leaders would treat them differently and peers would view them as weak (Sharp et al., 2015). Moreover, a commonly identified barrier to engaging in treatment among returning Afghanistan war veterans (for example, Operation Enduring Freedom [OEF]) and OIF veterans was pride in self-reliance and a belief that one should be able to handle mental health problems on one's own (Hoge et al., 2014; Stecker, Fortney, Hamilton, & Ajzen, 2007; for review, see Vogt, 2011). Further, the emphasis on mental fortitude within both military culture and traditional masculine ideology leads to an avoidance of disclosure and speaking about traumatic experiences (Mittal et al., 2013), which may have implications for veterans' trauma processing within treatment.

Two of the most widely utilized and empirically supported therapies for PTSD, prolonged exposure (PE) and cognitive processing therapy (CPT), include the explicit discussion of emotions, cognitions, and behaviors related to the traumatic experiences as central components of the treatment (Haagen et al., 2015). Although the processes within each treatment vary, the rationale for both treatments is that PTSD is maintained through avoidance of stimuli associated with the traumatic experience, including emotions. Treatment involves breaking this cycle of avoidance and confronting the trauma-associated stimuli by either directly approaching the stimuli or challenging the inaccurate beliefs that are maintaining avoidance.

Review of the Literature

The current review seeks to build upon past reviews examining masculine ideologies and mental health symptoms by examining the association between traditional masculinity ideologies and PTSD within military service members. Methodological strengths and weaknesses are evaluated with respect to internal, external, and construct validities. Conclusions and conceptual issues related to the association between masculine ideology and PTSD presentation, processes, and barriers to treatment are discussed in the context of these methodological strengths and weaknesses. Recommendations for future research and utilization of these results to enhance and adapt existing clinical interventions are also provided.

Method

Search Strategy

Searches were conducted in electronic databases PsycINFO, Google Scholar, Web of Science, and PubMed in October 2018 and March 2019. Searches were limited to empirical, peer-reviewed articles published in the last 25 years (1993 through the present). This time frame was chosen after a preliminary literature search identified an article by Schnurr, Friedman, and Rosenberg (1993) as the first article to examine constructs associated with gender role and gender socialization and PTSD symptoms (Schnurr et al., 1993). Keywords were selected in the two relevant domains; trauma-related keywords ("PTSD," "posttraumatic stress disorder," "trauma") were entered with search terms related to masculinity ideologies ("masculinity," "masculine role," "masculine," "manhood," "gender role strain"). In addition, reference sections of included studies were searched, and potentially relevant

articles were reviewed. Searches were limited to empirical, peer-reviewed articles written in English.

Articles were also excluded if they did not include an empirical examination of these associations (e.g., integrative reviews, opinion papers), focused on nonmilitary samples, did not include at least one qualitative or quantitative measure of traditional masculinity ideology, and did not include a measure of PTSD or include a trauma-exposed sample. Articles were included in the current review if their investigation of traditional masculinity ideology included at least one of the following: (a) participants' attitudes that the male role is consistent with status (e.g., high performance standards and achievement), toughness (e.g., dominance, emotional stoicism), and antifemininity (e.g., rejection of feminine-coded behaviors); (b) participants' own conformity to these masculine role norms; and/or (c) gender role strain or gender role stress associated with traditional masculinity ideologies. To ensure as expansive of a review as possible, articles were included if they recruited a sample of trauma-exposed veterans and indicated the proportion of the sample that self-reported a PTSD diagnosis (Caddick, Smith, & Phoenix, 2015; Scheinfeld et al., 2017). Because masculine role socialization occurs for female-identified service members as well as male-identified service members, no exclusion criterion for gender was established.

Data Extraction and Quality Assessment

The two searches yielded 322 results (Figure 1). After removing duplicate articles, 192 articles were selected for further screening. Titles and abstracts of these articles were screened for eligibility and relevance. A total of 67 articles were identified for full-text review. A total of 47 articles were excluded due to irrelevance or lacking empirical data, lacking measures of masculinity or PTSD, and

using a nonveteran population, and 20 articles were reviewed for quality assessment. Elizabeth C. Neilson conducted the searches, identified and reviewed articles, and assigned each a quality score. R. Sonia Singh and Kelly L. Harper were each assigned and reviewed half of the identified articles and assigned each a quality score, so each article was reviewed by Elizabeth C. Neilson and one of the independent reviewers.

Scientific rigor and quality of each study were evaluated through the Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields (Kmet, Lee, & Cook, 2004). Used for both qualitative and quantitative studies, this tool assesses the degree to which a study satisfactorily addresses 10 different domains for studies using qualitative design and 13 different domains for studies using quantitative design, including design identification, theoretical framework, data collection and analysis, results and conclusion coherence, and potential impact of the study. Each study is rated with a score of 0, 1, and 2 in each domain, and a total score is calculated from either 0 to 20 (qualitative) or 0 to 26 (quantitative). The quality score is computed by dividing the sum of responses and dividing it by the total possible quality score. Questions that do not apply to the evaluated study (e.g., questions regarding randomization are not applicable to cross-sectional methodologies) are scored as "NA," and the total score for that article is lowered. Studies with quality scores at or below 75% were excluded from the analyses in this review. In the event that two reviewers did not agree on the inclusion of an article, a third reviewer then reviewed the article and assigned a quality score, and the article was discussed among the team until consensus was reached. Three articles were excluded based upon quality score, and 17 articles were included in the review. Fleiss' κ coefficient for the interrater reliability was calculated ($k = .77$,

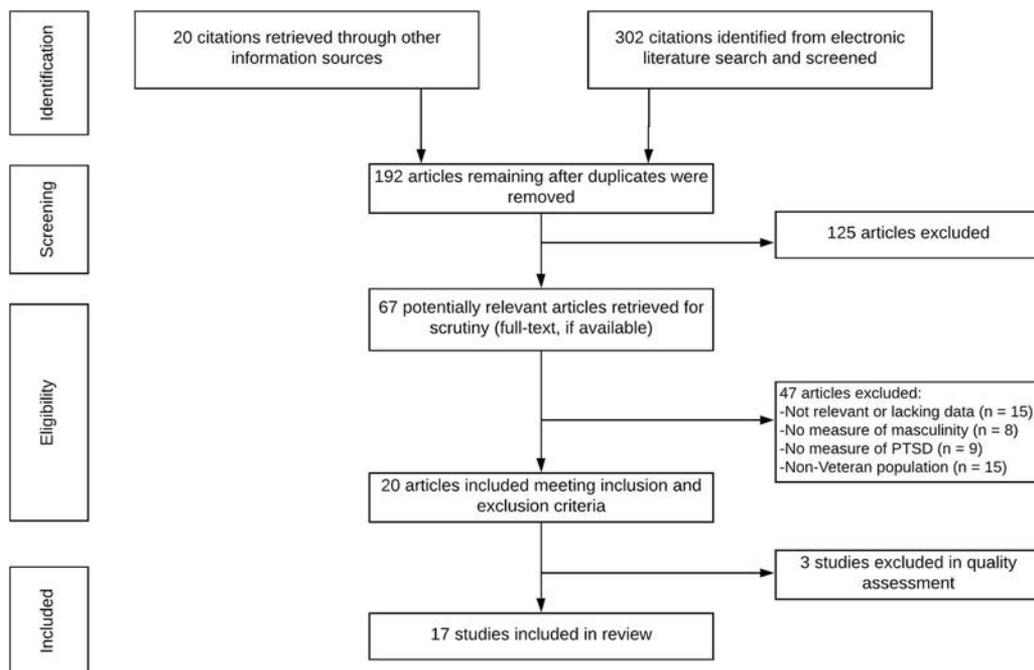


Figure 1. Preferred reporting items for systematic reviews and meta-analyses flowchart for systematic review.

$z = 3.64, p < .001$), suggesting moderate agreement between reviewers (McHugh, 2012). It should be noted that reviewers disagreed on the inclusion of only one article. Elizabeth C. Neilson, R. Sonia Singh, and Kelly L. Harper discussed each quality assurance criterion for this article, and a consensus was made not to include the article.

Elizabeth C. Neilson extracted data on each study's sample, conceptual framework, methods, outcome measures, results (both significant and nonsignificant), and strengths and limitations. Decisions on what data to extract from the articles was guided by Preferred Reporting Items for Systematic Reviews and Meta-Analyses recommendations (Moher, Liberati, Tetzlaff, & Altman, 2009). After extracting information and following the quality assurance procedures, Elizabeth C. Neilson identified commonalities between articles' objectives and key findings, including nonsignificant findings, and created common themes within the quantitative and qualitative articles. R. Sonia Singh, and Kelly L. Harper reviewed these commonalities and provided feedback, and a consensus was made regarding the themes. Quantitative and qualitative results are presented separately (Tables 1 and 2), and the identified themes are discussed within each methodology.

Results

Description of Included Studies

Based on the 67 studies retrieved from the initial search, 20 studies satisfied inclusion criteria and were reviewed for quality assurance and data extraction. A flowchart of the study screening process can be found in Figure 1. Of those reviewed, three qualitative studies were excluded due to failure to meet the quality control cut points established, and thus 17 were included in this review. Details of included studies can be found in Tables 1 and 2. Thirteen studies were conducted with U.S. military veterans, and four studies included veterans from Canada (Kivari, Oliffe, Borgen, & Westwood, 2018), the United Kingdom (Caddick et al., 2015), Israel (Gilbar, Dekel, Spector-Mersel, & Levi, 2019), and Vietnam (Nguyen et al., 2014). All included studies recruited participants with trauma exposure, although studies varied as to whether they specified the type of trauma or the proportion of the sample that had experienced trauma. Measurement of PTSD symptomatology using an evidence-based diagnostic assessment or assessment tool or screener (e.g., Primary Care—PTSD screen) was included in 11 of the 17 studies; one study recruited veterans directly from a Veterans Affairs (VA) PTSD clinic where they had undergone a formal PTSD diagnostic interview and received a PTSD diagnosis (Elder et al., 2017). A second study recruited veterans who were identified as having a PTSD diagnosis by the country's Rehabilitation Department of the Ministry of Defense (Gilbar et al., 2019). Four studies explicitly indicated the proportion of participants who had experienced combat trauma only (Garcia et al., 2011; Herrera, Owens, & Mallinckrodt, 2013; McDermott, Currier, Naylor, & Kuhlman, 2017; Scheinfeld et al., 2017); three studies assessed MST only (Elder et al., 2017; Juan, Nunnink, Butler, & Allard, 2017; Monteith, Gerber, Brownstone, Soberay, & Bahraini, 2019); two studies assessed combat and exposure to a second type of trauma, including MST and motor vehicle accidents (Cox & O'Loughlin, 2017; Voller et al., 2015); and one study examined torture and imprisonment in the context of

war (Nguyen et al., 2014). Seven of the studies did not list the type of trauma exposure (Caddick et al., 2015; Gilbar et al., 2019; Heath, Seidman, Vogel, Cornish, & Wade, 2017; Jakupcak, Blais, Grossbard, Garcia, & Okiishi, 2014; Jakupcak et al., 2006; Kivari et al., 2018; Morrison, 2012).

Quantitative

Of the 11 studies utilizing a quantitative methodology (Table 2), all but one (Scheinfeld et al., 2017) utilized a cross-sectional design. Of the studies that reported demographic data for their samples, mean age ranged from 29.07 to 67.4 years, and samples varied greatly in their racial/ethnic diversity, with one sample reported to be 8.2% non-White and another sample reported to be 84% non-White. Six studies provided information on the proportion of the sample that endorsed PTSD symptoms or were diagnosed with PTSD; prevalence of PTSD within these samples varied from 26% to 100% of the sample. Four of the studies exclusively reported combat experience, one reported MST, two reported multiple types of trauma, and the remainder did not include trauma type.

Traditional masculinity ideology and overall conformity to masculine norms. Overall, endorsing traditional masculinity ideology was associated with PTSD symptom severity, whereas stress from violating traditional masculinity ideology (e.g., discrepancy strain) and engaging in traditional masculine norms carried implications for clinically relevant constructs, such as treatment dropout and self-efficacy. Two studies examined beliefs that men should adhere to traditional masculine norms and found traditional masculinity ideology to be positively associated with PTSD symptom severity (Cox & O'Loughlin, 2017; Herrera et al., 2013). Three studies examined gender role stress (e.g., discrepancy strain) as a predictor of PTSD symptoms (Jakupcak et al., 2006; Juan et al., 2017; Morrison, 2012), of which two looked specifically at veterans with MST (Jakupcak et al., 2006; Juan et al., 2017). Morrison found a positive association between gender role stress and PTSD symptom severity (Morrison, 2012). Surprisingly, within the two studies that examined MST and gender role stress, men with histories of MST did not differ on their masculine role stress from men without MST (Jakupcak et al., 2006; Juan et al., 2017).

Although not directly associated with PTSD symptom severity, Jakupcak and colleagues (2006) found that masculine gender role stress was positively associated with two constructs relevant to PTSD treatment: alexithymia, an inability to identify or describe one's emotions, and lower levels of social support, both of which are associated with PTSD (Frewen, Dozois, Neufeld, & Lanius, 2008; Ozer, Best, Lipsey, & Weiss, 2003). Juan and colleagues did not find a significant association between gender role stress and PTSD symptoms (Juan et al., 2017). Results associated with one's own conformity to traditional masculine norms were less consistent, although conformity to overall masculine norms was only examined in two studies. Morrison found that men's self-reported conformity to overall masculine norms was not associated with PTSD symptom severity (Morrison, 2012). Notably, one study used a randomized control trial of an outward bound treatment program for U.S. military veterans (Scheinfeld et al., 2017). The authors examined how changes in mental health symptoms across the treatment program were associated with changes in conformity

Table 1
Quantitative Studies Characteristics, Methodology, and Findings

Name (year)	Sample characteristics	Methodology	Trauma exposure	Measurement of PTSD (% PTSD diagnosis)	Operationalization of masculinity	Key findings	Quality value
Voller et al. (2015)	1,827 male and female U.S. Gulf War I Veterans seeking disability benefits for PTSD (56% younger than 49 years); 65% non-White	Cross-sectional survey	Combat exposure and sexual trauma (childhood sexual abuse, MST, and last-year adult sexual assault)	Primary care-PTSD screen (76.4%)	Evaluation of Emotions subscale from the Auburn Differential Masculinity Inventory	Devaluation of emotions did not moderate the association between sexual trauma and self-efficacy Devaluation of emotions was inversely associated with self-efficacy	20/22
Garcia et al. (2011)	69 male U.S. Operation Enduring Freedom/Operation Iraqi Freedom veterans with PTSD ($M_{age} = 32.94, SD = 7.54$); 84% non-White	Cross-sectional survey	Combat exposure	PTSD Checklist-Military (% diagnosis not reported)	Masculine Behavior Scale with subscales	Exaggerated self-reliance was positively associated with total PTSD symptom severity Success dedication was negatively associated with PTSD Avoidance severity Exaggerated self-reliance was positively associated with Hyperarousal symptom severity Higher scores on conformity to masculine norms and gender role stress were associated with PTSD symptom severity Emotional Inexpressiveness was associated with greater PTSD symptom severity	19/22
Morrison (2012)	197 male U.S. veterans ($M_{age} = 67.4, SD = 13.0$); 8.2% non-White	Cross-sectional survey	Not listed	PTSD-Military (% diagnosis not reported)	Conformity to Masculinity Norms Inventory Masculine Gender Role Stress Scale	Higher scores on conformity to masculine norms and gender role stress were associated with PTSD symptom severity Emotional Inexpressiveness was associated with greater PTSD symptom severity	19/22
Jakupcak et al. (2014)	316 male U.S. OEF/OIF veterans ($M_{age} = 30.0, SD = 7.8$); 32.8% non-White	Cross-sectional survey	Not listed	PTSD Checklist-Military (58%)	Toughness subscale of the Male Role Norms Scale	Greater endorsement of emotional toughness was associated with increased likelihood for PTSD diagnosis (odds ratio = 3.0)	18/22
Herrera et al. (2013)	45 male, Latinx U.S. veterans ($M_{age} = 29.07, SD = 8.78$); 51% self-identified as Mexican	Cross sectional survey	Combat	PTSD Checklist-Military (29%)	Traditional Machismo and Caballerismo Scale	Traditional machismo was positively correlated with PTSD symptoms Emotional restrictedness and control were negatively associated with dyadic adjustment (relationship satisfaction) A facet of masculinity, caballerismo, was not associated with PTSD symptoms	17/22
McDermott et al. (2017)	349 male and female U.S. active duty or Veteran students; ($M_{age} = 32.73, SD = 9.11$); 34.6% non-White	Cross-sectional survey	62% combat exposure	PTSD Checklist-Civilian (% diagnosis not reported)	Emotional Control and Self-Reliance subscales of the Conformity to Masculine Norms Inventory	Emotional control was related to self-stigma only among student veterans with history of war-zone deployment Painful self-conscious emotions (guilt, shame) were indirectly related to self-stigma through emotional control and self-reliance for veterans with history of deployment	22/22

(table continues)

Table 1 (continued)

Name (year)	Sample characteristics	Methodology	Trauma exposure	Measurement of PTSD (% PTSD diagnosis)	Operationalization of masculinity	Key findings	Quality value
Jakupcak et al. (2006)	45 male U.S. veterans seeking inpatient PTSD treatment ($M_{age} = 55.42, SD = 5.32$); 13.3% non-White	Cross-sectional survey	Unlisted	Psychiatric interviews and behavioral observation by PTSD Evaluation and Brief Treatment Unit and Mississippi Scale for Combat-Related PTSD (100%)	Masculine Gender Role Stress Scale	Masculine gender role stress was positively associated with alexithymia, controlling for PTSD symptoms severity Masculine gender role stress was associated with lower levels of social support, controlling for PTSD symptom severity Masculine gender role stress was not associated with PTSD symptom severity or fear of emotions	20/22
Juan et al. (2017)	104 male U.S. veterans ($M_{age} = 47.02, SD = 12.10$); 34.62% non-White	Cross-sectional survey	50% MST	PTSD Checklist-Specific (% diagnosis not reported)	Masculine Gender Role Stress	Masculine gender role stress did not differ between men by MST history Men with MST reported higher emotional inexpressiveness and intellectual inferiority Masculine gender role stress did not mediate the relationship between MST and PTSD Emotional inexpressiveness was associated with PTSD symptoms Traditional masculine ideology was associated with PTSD symptoms Restrictive emotionality, avoidance of femininity, dominance, and toughness were associated with PTSD symptoms Restrictive emotionality was correlated with greater stigma to seek professional mental health For men with low-to-moderate psychological distress, restrictive emotionality was associated with stigma to mental health seeking Conformity to masculine norms was associated with dropout from program Changes in mental health outcomes did not change as a function of conformity to masculine norms	22/22
Cox and O'Loughlin (2017)	76 U.S. male veterans ($M_{age} = 46.55, SD = 10.30$); 12% non-White	Cross-sectional survey	56% combat, 16.8% physical assault, 8.4% motor vehicle accident, 18.8% other	PTSD Checklist-5 (79%)	Male Role Norms Inventory		18/22
Heath et al. (2017)	271 male U.S. current or former military personnel ($M_{age} = 31.39, SD = 7.94$); 35.1% non-White	Cross-sectional survey	Not listed	Clinical Outcomes in Routine Evaluation	Restrictive Emotionality subscale of the Gender Role Conflict Scale-Short Form		18/22
Scheinfield et al. (2017)	177 male U.S. military veterans enrolled in outward bound ($M_{age} = 36.06, SD = 9.97$); 16% non-White	Randomized clinical trial	91% deployed to Iraq and/or Afghanistan; 69% combat	Self-report (28% PTSD) Outcome Questionnaire-45.2 (26%)	Conformity to Masculine Norms Inventory		22/26

Note. PTSD = posttraumatic stress disorder; MST = military sexual trauma.

Table 2
Qualitative Studies Characteristics, Methodology, and Findings

Name (year)	Sample characteristics	Methodology	Trauma exposure	Measurement of PTSD (% PTSD diagnosis)	Operationalization of masculinity	Key findings	Quality value
Caddick et al. (2015)	15 male U.K. veterans and one civilian (aged 27–60); race not provided	Individual interviews and participant observation	Not listed	Self-reported diagnosis of PTSD (66%)	Dialogical narrative analysis to identify themes	Dominant response to PTSD was to “man up.” Participants disregarded symptoms to maintain masculine image Proactive stances in addressing PTSD were found to rebuild masculine identities Use of humor and banter fostered connection and relieved suffering Nine interviewees engaged in frequent sex to feel sexually desirable to distract from thoughts of worthlessness A total of 15 participants perceived themselves as weak and worried they would be perceived as weak in response to MST Following MST, men began acting hypermasculine A total of 14 participants restricted vulnerable emotions and expressed anger in response to MST	17/20
Elder et al. (2017)	21 male U.S. veterans ($M_{\text{age}} = 44$); 55% non-White	Individual interviews	MST	Diagnosed with PTSD at VA hospitals (100%)	Grounded theory to identify themes	Participants reported feeling a loss of control and helplessness that damaged their perceived masculinity Participants indicated their responses during trauma were inconsistent with masculinity Posttrauma difficulties with employment and sexuality diminished participants’ view of themselves as a men Trauma was associated with compensatory heightening of masculinity through aggressive and violent behavior and hypersexuality Preexisting beliefs about gender norms, masculinity, and sexual influenced interpretations and reactions to MST Participants stated that they felt a need to “prove” their masculinity and heterosexuality to themselves and others, through risky sexual behavior	19/20
Gilbar et al. (2019)	14 male Israeli combat veterans ($M_{\text{age}} = 44$, $SD = 33.02$); 100% Israeli	Individual interviews	100% PTSD diagnosis	Behavioral observation	Phenomenological approach to identify themes		18/20
Monteith et al. (2019)	18 male U.S. veterans ($M_{\text{age}} = 56.06$, $SD = 8.63$); 61.1% non-White	Individual interviews	MST; 50% positive PTSD screen; 50% provisional PTSD diagnosis	PTSD Symptom Checklist-5 (50%)	Thematic analysis to identify themes		16/20

(table continues)

Table 2 (continued)

Name (year)	Sample characteristics	Methodology	Trauma exposure	Measurement of PTSD (% PTSD diagnosis)	Operationalization of masculinity	Key findings	Quality value
Nguyen et al. (2014)	14 male Vietnamese veterans ($M_{age} = 64.69$; $SD = 6.98$); formerly imprisoned in a Socialist Republic of Vietnam reeducation camp; 100% non-White	Individual interviews; 100% PTS symptoms	Imprisonment; torture	Consensual qualitative research methodology to identify themes; 100% symptoms	Consensual qualitative research methodology to identify themes	Perceptions that only women experience sexual assault, fear of being perceived as gay, and concerns about being discharged from military deterred MST disclosure Participants discussed traditional male roles, including emotional strength, providing, and heading the household Participants reported they saw no change in how they thought of themselves as men or their ideas of masculinity Emphasized the need to adapt to circumstances to fulfill roles Participation in the group was associated with inconsistent changes in the conformity to masculine norms Participation was associated with feeling of connectedness with group members Following group, men displayed decreases in masculine posturing	17/20
Kivari et al. (2018)	Seven male Canadian veterans ($M_{age} = 47.41$) in the Veterans Transition Program, a residential group-based program; 0% non-White	Individual interviews	Unlisted	Enhanced critical incident technique to identify themes	Enhanced critical incident technique to identify themes		19/20

Note. PTSD = posttraumatic stress disorder; MST = military sexual trauma.

to masculine norms (Scheinfeld et al., 2017). Conformity to masculine norms was associated with dropping out of the program prematurely (Scheinfeld et al., 2017). However, the results suggested that changes in mental health were not associated with differences in conformity to masculine norms.

Emotional stoicism and control. Five of the included studies examined emotional stoicism and toughness or devaluing emotion as a facet of traditional masculinity. Four of the five studies found that constricting or devaluing emotion was positively associated with PTSD symptom severity, with one study finding no association between emotional constriction and PTSD symptom severity (Garcia et al., 2011). Emotional toughness and restrictive emotionality were associated with more severe PTSD symptoms in both recently returned (Herrera et al., 2013; Jakupcak et al., 2014) and older Veterans (Cox & O’Loughlin, 2017; Morrison, 2012).

For those studies that did not directly examine PTSD symptom severity, emotional stoicism and devaluating emotions were associated with PTSD-related constructs. A study examining U.S. Veterans of the First Gulf War with histories of combat and sexual trauma found devaluating emotions was negatively associated with self-efficacy (Voller et al., 2015). Notably, devaluating emotions did not moderate the association between sexual trauma and self-efficacy, suggesting the association between devaluating emotions and self-efficacy is not stronger for men with a history of MST. A study examining Latinx U.S. OEF/OIF veterans found that emotional restrictedness and control were negatively associated with dyadic adjustment, a component of relationship satisfaction (Herrera et al., 2013). Heath and colleagues (2017) also found that restricting one’s experiences of emotions was also associated with greater stigma to seek professional mental health services among recently returning veterans. These results suggest that the degree to which veterans endorse emotional control or stoicism and devalue emotions is positively associated with constructs associated with PTSD, suggesting an indirect relationship between this facet of traditional masculinity and PTSD severity.

One of the few studies to examine male and female veterans examined emotional control, a tendency and desire to avoid emotional vulnerability, and self-stigma for seeking professional help for mental health concerns (e.g., feeling inadequate or weak if they sought psychological treatment; McDermott et al., 2017). Among veterans with a history of war-zone deployment, veterans who endorsed more emotional control, a facet of traditional masculinity, also endorsed more self-stigma regarding seeking mental health treatment (McDermott et al., 2017). Notably, this study also found that, for veterans with a history of war-zone deployment, experiencing vulnerable emotions such as shame and guilt was associated with more emotional control, which was then associated with self-stigma (McDermott et al., 2017). That is, veterans with exposure to a war-zone who were experiencing shame and guilt also reported desires to suppress their emotional vulnerability, which in turn was associated with attitudes that seeking mental health services was a sign of inadequacy or weakness (McDermott et al., 2017).

Status. Only one study found a buffering effect between one facet of masculinity on symptoms of PTSD. Scores on the Success-Orientation subscale of the Conformity to Masculine Norms scale, a subscale most consistent with the status facet of masculinity (Thompson & Pleck, 1995), were negatively associated with the avoidance cluster of PTSD symptoms. That is, the degree to which

men reported conformity with behaviors such as a drive for success and respect was associated with less avoidance of trauma-related internal and external reminders (Garcia et al., 2011). No other studies found a similar association between traditional masculinity and PTSD—that is, no other study found attitudes or behaviors consistent with traditional masculinity as protective against PTSD.

Qualitative

Six of the studies utilized a qualitative methodology, with the majority utilizing individual interviews (Table 1). Data analytic methods were diverse, and the majority used either thematic analysis or dialogical narrative analysis. Of the studies that reported demographic data for their samples, mean age ranged from 44.0 to 64.69 years, and samples varied greatly in their racial/ethnic diversity, with one sample reported to be 0% non-White, and another sample reported to be 100% non-White. Four of the studies reported the proportion of their sample that met criteria for PTSD; prevalence of PTSD varied from 50% to 100% in these studies. One of the studies exclusively reported MST, one reported multiple types of trauma, one study reported imprisonment and torture, and the remainder did not include trauma type.

Trauma as weakness. A consistent conclusion among the qualitative studies was the theme that experiences of trauma are inconsistent with traditional masculine norms. Among U.S. veterans with a history of MST, almost 75% reported they perceived themselves as weak and began to restrict “all emotions except anger” following MST (Elder et al., 2017). Male survivors of sexual trauma may experience this form of trauma as violating gender socialization that men are sexually dominant. However, perceiving oneself to be weak and subsequently restricting vulnerable emotions following trauma was not unique to MST survivors. Among interviews with Israeli combat veterans, the majority indicated that when they experienced other forms of trauma, they also felt a “loss of control and helplessness” and that their performance during the event “did not [live] up to the standards of being a man” (Gilbar et al., 2019). Further, veterans reported they believed subsequent difficulties sustaining employment and sexual performance “harmed their sense of masculinity” (Gilbar et al., 2019). British veterans with self-reported PTSD also indicated they should “man up” following trauma (Caddick et al., 2015). Regarding mental health symptoms, two investigations found that veterans indicated their mental health symptoms contributed to a sense of personal failure (Gilbar et al., 2019) or that they attempted to forget about their mental health concerns to maintain a masculine image because “the notion of distress as ‘weakness’ was so deeply embedded” (Caddick et al., 2015).

Hypermasculinity via aggression and sexuality. Qualitative investigations also reported veterans’ urges to engage in hypermasculine behaviors following trauma. One study involving Israeli combat veterans reported that, following a traumatic experience, they engaged in compensatory behaviors to heighten their masculinity, including aggression and hypersexuality (Gilbar et al., 2019). Engagement in hypermasculine behaviors was also found in U.S. veterans with histories of MST; veterans reported engaging in “frequent sex to avoid negative thoughts” because “feeling sexually desirable temporarily suspended negative thoughts about their self-worth” (Elder et al., 2017). Displays of hypersexuality were

linked to concerns about appearing homosexual following MST; Elder and colleagues reported Veterans had casual sex to “reaffirm heterosexuality to self” (Elder et al., 2017). Similarly, Monteith and colleagues (2019) found survivors of MST stated they needed to “prove their masculinity and heterosexuality—both to themselves and others.” This was accomplished through risky, sexual behavior and/or a rejection of any behaviors perceived to be associated with homosexuality. Consequently, male veterans may perceive their experience of trauma and subsequent reactions to be inconsistent with masculine norms, particularly trauma experiences associated with sexual violence. They may then engage in more hypermasculine behaviors to compensate for these perceptions, including the perception of homosexuality, and affirm their masculinity.

Flexible enactment of masculinity. Rather than rigidly conforming to traditional perceptions of masculinity, other investigations found flexible conceptualizations of masculinity to be adaptive following trauma. Male veterans who used humor and banter with other men to foster connection reported greater well-being (Kivari et al., 2018) and less suffering (Caddick et al., 2015). Moreover, the sense that one was taking a proactive stance to address PTSD was found to help rebuild a sense of masculinity (Caddick et al., 2015), suggesting that help-seeking may be framed as a proactive step toward addressing PTSD. Interviews with Vietnamese veterans previously imprisoned in reeducation camps also indicated they did not experience a change in how they saw themselves as men but that they needed to “adapt to their circumstances” (Nguyen et al., 2014). For example, men reported that they endorsed beliefs consistent with traditional male roles such as the importance of providing and acting as the head of the household and exhibiting emotional strength; however they were flexible in how they enacted these values (Nguyen et al., 2014). A flexible application of their perceptions of masculinity and enactment of their masculinity enabled them to maintain their perceptions of themselves as men following trauma.

Discussion

The results of this systematic review suggest variability in the effect of traditional masculinity on PTSD and clinically relevant constructs among veterans. Previous reviews and meta-analyses have found that conformity to masculine norms is associated with negative mental health outcomes and psychological help-seeking (for review, see O’Neil, 2012; Wong et al., 2017); however this present study is novel in its investigation of these processes exclusively within veterans samples. Notably, this study suggests that veterans’ own conformity to behaviors consistent with traditional masculinity as a whole was inconsistently associated with PTSD; however, conformity to specific facets of traditional masculinity demonstrated a more consistent association with PTSD and is explained in the following text. Further, the strain veterans experience when they violate traditional masculinity norms that they perceive to be important is associated with PTSD. The prevalence of PTSD among veterans and the fact that they are socialized in military culture with unique messages regarding masculinity suggests a specialized focus on the associations between traditional masculinity ideology and PTSD outcomes is warranted.

Emotional Control and PTSD

Of the reviewed studies, the association between emotional stoicism or toughness and PTSD-related constructs, such as self-stigma and self-efficacy, emerged as the most consistent finding within both qualitative and quantitative studies. Within the included quantitative studies that examined emotional stoicism, in-expression, or toughness, all found that inexpression of emotion was associated with more severe PTSD symptoms. Emotional stoicism was also shown to negatively affect relationship adjustment (Herrera et al., 2013) and perceptions of one’s sexuality (Gilbar et al., 2019), suggesting adherence to these traditional masculine tropes also negatively influences quality of life. Notably, these findings occurred for veterans with MST (Juan et al., 2017), combat, and a variety of traumatic experiences (e.g., car accidents, criminal victimization; Cox & O’Loughlin, 2017). Emotional stoicism and toughness were also associated with clinically relevant constructs that can impede clinical interventions, including self-efficacy (Voller et al., 2015), self-stigma (McDermott et al., 2017), and help-seeking (Heath et al., 2017).

Two of the most widely used and evidence-based treatments for PTSD (e.g., PE and CPT) posit PTSD is maintained by continuous avoidance of trauma-related stimuli (e.g., memories, situations), and this avoidance impedes the emotional processing of the trauma. Approaching the trauma-related stimuli is temporarily associated with distress (Foa, Hembree, & Rothbaum, 2007). Suppression of emotions, particularly those associated with fear and sadness, may be temporarily effective when exposed to trauma, particularly during combat when one is expected to maintain emotional composure and complete a task. The experience and expression of more vulnerable and feminized emotions (e.g., sadness, fear, and shame) violates both military culture norms and gender norms of the dominant culture. However, suppression of emotions over lengthy periods of time and in contexts where it is no longer necessary or adaptive may contribute to the development or exacerbation of PTSD symptoms (Moore, Zoellner, & Mollenholt, 2008). Veterans who report a strong identification with military culture and the emphasis on emotional stoicism may be at greater risk to develop PTSD than those who do not.

Hypermasculinity and PTSD

The results of this review also indicate a tendency toward hypermasculinity following trauma. Qualitative studies consistently found that, when experiencing a perceived loss of control following trauma, veterans felt compelled to reaffirm their masculinity, for example, “man up” (Caddick et al., 2015; Gilbar et al., 2019). This was manifested by engaging in hypermasculine behaviors such as risky sex and violent and aggressive activities. Notably, several veterans conflated femininity and homosexuality, stating that hypermasculine behaviors such as hypersexuality were a rejection of both feminine attributes and homosexuality (Elder et al., 2017; Gilbar et al., 2019; Monteith et al., 2019). Whereas the majority of this research has examined men who are survivors of MST, this tendency was also observed among male combat veterans. These findings are consistent with Kimmel’s (1997) research theorizing that men who engage in hypermasculine activities, including violence and hypersexuality, are engaging in such behaviors to avoid the possibility that other men will believe them to be gay. The tendency to overcompensate for negative beliefs

about oneself as a man, including reaffirmation of heterosexuality, was observed for veterans with and without an MST history. If experiences of helplessness and powerlessness during trauma exposure occurs within the context of traditional masculinity ideology, veterans may feel compelled to engage in hypermasculine behaviors to affirm their masculinity. The drive to affirm masculinity may contribute to veterans' postservice risk for substance abuse, sexually transmitted infections, and legal involvement.

Methodological Considerations and Future Directions Within the Empirical Literature

Examining the role of traditional masculinity ideology and PTSD creates a number of methodological challenges, some of which were consistent across the reviewed articles and necessitate noting. Conceptual understandings of traditional masculinity ideology highlight masculinity as comprising three components: status, toughness, and antifemininity (Pleck, 1995). The current review observed the toughness facet to be the most commonly studied facet of traditional masculinity ideology related to PTSD. Specifically, conforming to emotional stoicism or endorsing emotional stoicism as consistent with traditional masculine roles was associated with PTSD. Rejection of femininity was more consistently reported in qualitative studies. Veterans described engaging in hypermasculine behaviors, including engaging in hypersexual behaviors, to reaffirm masculinity and heterosexuality. Quantitative studies may wish to expand their investigations to examine this rejection of femininity as a predictor of PTSD. Only one study found a significant association between PTSD and the status facet of masculinity. Men are socialized to engage in action-focused coping, which is hypothesized to be protective against PTSD (for review, see Street & Dardis, 2018). It is possible that men who report conformity to achieving status and respect may also engage in more active problem-solving and thus are less likely to avoid trauma-related triggers. This requires replication, and future research should continue exploring the association between drives for status and PTSD. In addition to expanding future research into other domains of traditional masculinities, future research should also continue to explore the role of different types of gender role strain and PTSD among veterans. The majority of research examining gender strain has focused on constructs consistent with dysfunction strain and discrepancy strain. Future research should examine how the process of socialization to military culture (i.e., trauma strain) may contribute to therapy engagement and mental health outcomes.

One's understanding and embodiment of masculinity is influenced by a multitude of intersecting identities, including race, sexual orientation, age, and other developmental characteristics (for review, see APA, 2018). Veterans are a highly diverse group, with multiple identities including race, socioeconomic status, geography, age, immigration status, and gender. Future studies would benefit from examining the moderating effects of these identities on the associations between conformity to traditional masculinity and PTSD outcomes. It is important to note that female and transgender service members are socialized to these same ideologies and thus may internalize these same values (Herbert, 1998). Because female cadets are more vulnerable to being stereotyped as feminine even if their military performance is comparable to male cadets (Boldry, Wood, & Kashy, 2001; Silva, 2008), women may

feel the need to rigidly conform to masculinity norms in an effort to avoid further marginalization. Female soldiers report feeling pressured to adopt either heightened masculine traits or feminine traits, rather than integrating both, suggesting that masculinity socialization is particularly complicated for female service members (Herbert, 1998; Pierce, 2006). Given veterans of all genders are exposed to military culture and may endorse attitudes consistent with traditional masculinity, future research should not exclusively examine these associations within cisgender male veterans. The field would benefit from examining how attitudes and behaviors consistent with traditional masculinity ideology may contribute to PTSD outcomes within cisgender female and transgender veterans.

The beliefs and behaviors consistent with traditional masculinity ideologies vary based upon the culturally specific conceptualization of masculinity. Of the reviewed articles using U.S. veteran samples, only one (Herrera et al., 2013) examined culturally grounded conceptualizations of masculinity (e.g., *caballerismo* and *machismo*), finding *caballerismo* was not associated with PTSD symptoms, whereas *machismo* was positively associated with PTSD symptoms. The majority of reviewed studies included United States' veteran samples. Future research may benefit from examining how culturally bound attitudes and messages regarding masculinity influence PTSD outcomes. Further, how masculinity is expressed varies considerably by culture; thus the degree to which adherence to masculine gender norms is a risk factor for PTSD may differ based upon the cultural norms through which masculinity is enacted.

Expanding the current research requires valid measurement of traditional masculinity ideologies. It is vital that investigations of traditional masculinity ideologies measure the nuances of men's conformity to these beliefs and behaviors across culture and time. The current review supports the distinction between men's perceptions of traditional masculinity norms, their conformity to those norms, and the stress of violating norms as separate constructs within traditional masculinity ideologies (for review, see Thompson & Bennett, 2015). Future research should consider including multiple measures of masculinity to address these different dimensions, such as the Male Role Norms Inventory, Conformity to Masculine Norms Inventory, and the Masculine Gender Role Stress Scale. Masculinity ideologies vary by cultural context and intersecting identities, and thus researchers should also consider measures developed for use with samples outside of European Americans, such as the Multicultural Masculinity Ideology Scale, Male Attitude Norms Inventory, and the Machismo Measure (for review, see Thompson & Bennett, 2015).

The measurement of PTSD and proportion of participants who met diagnostic criteria for PTSD varied tremendously within the examined research. Many studies utilized self-report measures of PTSD symptoms (e.g., PTSD Checklist) or PTSD diagnosis confirmed through medical records or diagnostic interview, whereas some recruited veterans who indicated they had PTSD or were "living with PTSD" (Caddick et al., 2015). It is vital that researchers clearly identify their operationalization of PTSD (e.g., PTSD diagnosis, subthreshold PTSD symptoms, exposure to trauma, and self-reported PTSD) and avoid interpretations of their results beyond their sample. For example, making clinical recommendations from a sample that has self-reported a PTSD diagnosis requires replication with a clinical sample. Further, whereas a number of the quantitative articles utilized the PTSD Checklist, most did not

indicate what proportion of their sample met criteria for PTSD. Providing this additional information enables researchers to better understand the context of the results and build upon these investigations.

Finally, although the current review is enriched through qualitative and quantitative methods, the current body of research overwhelmingly relies on either cross-sectional or interview methodologies. Of the 20 studies reviewed in full, the majority met the quality assurance standards and comprehensively presented their objectives, procedures, and conclusions while contextualizing the study within the broader field. Three qualitative studies were not included due to failure to meet the quality assurance standards. Qualitative research enables researchers' enhanced depth to explore the data, and future research should consider ensuring the data collection, analyses, and verification procedures are established and described when presenting these results. The current review suggests endorsement of traditional masculinity ideology influences PTSD severity and treatment engagement. These conclusions should be investigated further through experimental or longitudinal methods. Future research should consider examining changes in adherence to traditional masculinity and PTSD symptoms over time.

Clinical Implications

Interventions targeting PTSD may consider including measures of traditional masculinity to examine any changes following treatment (Scheinfeld et al., 2017), particularly in the context of evidence-based treatments. It is also unclear to what extent trauma clinicians are already addressing the degree to which clients' beliefs and behaviors are consistent with traditional masculinity ideology or the degree to which clients are experiencing gender role strain. Components of both PE and CPT involve processing vulnerable emotions, and clinicians may already be incorporating different strategies to address how conformity to traditional masculinity is influencing treatment. It is also unclear how treatment adherence and the in-the-moment processes in therapy are affected by veteran's traditional masculinity ideology and gender role strain. For example, understanding how conformity to traditional masculinity affects imaginal and in vivo exposures in PE or challenging stuck points within the Power and Control module in CPT may provide helpful information for trauma clinicians. This is not to suggest that veterans require psychoeducation and examination of gender norms before treatment engagement but rather that future research is needed to examine the role of traditional masculinity ideology on treatment targets. There are a multitude of masculinity ideologies between and within cultures, and future research will enable researchers to better understand how variance between masculinity ideologies also influences clinical outcomes. Case studies and research with clinicians may clarify this and enable helpful techniques to be disseminated.

Recent recommendations from the APA highlight the importance of including masculinity when conceptualizing men and boy's mental health care (APA, 2018). Clinicians may consider including an assessment of beliefs about masculinity to identify whether emotional stoicism and displays of hypermasculinity are connected with veterans' traditional masculinity ideologies. It is important to recognize that masculinity is multifaceted and varies by culture and intersecting identities. Although a number of the

articles reviewed here find aspects of traditional masculinity to be detrimental to veteran mental health, how masculinity is enacted also plays a role in mental health. Veterans who are able to flexibly shift the ways in which they enact their masculine roles or conceptualize masculinity may be able to maintain their views of themselves as men. Thus, clinicians working with veterans who rigidly conform to traditional masculinity may consider providing psychoeducation and reinforce adaptive and flexible displays of masculinity. This may include helping veterans challenge their beliefs about masculinity and discussing different expressions of masculinity that may still be connected to veterans' values and self-concepts as men. Such interventions could be incorporated into existing trauma-focused treatments and also could be included into interventions with veterans that do not include an explicit trauma focus (Caddick et al., 2015; Scheinfeld et al., 2017). This may also be relevant to female and transgender veterans who receive the same messages regarding masculinity through their military service and who may place importance on these beliefs and behaviors and/or feel compelled to conform to them.

Limitations of the Current Review and Conclusions

The current review restricted its search to investigations regarding veterans and PTSD. As this search enabled the reviewers to provide a more nuanced examination of the literature, the results of this review may not apply to other mental health outcomes. Further, the associations between beliefs and behaviors that conform to traditional masculinity ideology and PTSD outcomes may differ for civilian populations.

The current review sought to provide an examination and overview of the current state of the literature regarding traditional masculinity and PTSD within veteran samples. Based upon the current review, aspects of emotional stoicism and urges to reaffirm one's masculinity following trauma may pose as risk factors for veteran's PTSD symptom severity and create barriers to treatment engagement. Future research is needed to understand more fully how adherence to traditional masculinity ideology may influence treatment processes and outcomes. Future research would also benefit from an intersectional conceptualization of masculinity, including how different cultural understandings of masculinity and the expression of masculinity influence PTSD outcomes. Such research may generate results and clinical recommendations that enrich the implementation and dissemination of PTSD prevention and treatment programs, thus reducing the longstanding impact of PTSD for veterans.

References

- Abraham, T., Cheney, A. M., & Curran, G. M. (2017). A Bourdieusian analysis of U.S. military culture ground in the mental help-seeking literature. *American Journal of Men's Health, 11*, 1358–1365. <http://dx.doi.org/10.1177/1557988315596037>
- Ahmadian, A. J., Neylan, T. C., Metzler, T., & Cohen, B. E. (2019). Longitudinal association of PTSD symptoms and self-reported physical functioning among Veterans. *Journal of Affective Disorders, 250*, 1–8. <http://dx.doi.org/10.1016/j.jad.2019.02.048>
- American Psychological Association. (2018). *APA guidelines for psychological practice with boys and men*. Retrieved from <http://www.apa.org/about/policy/psychological-practice-boys-men-guidelines.pdf>

- Atuel, H. R., & Castro, C. A. (2018). Military cultural competence. *Clinical Social Work Journal, 46*, 74–82. <http://dx.doi.org/10.1007/s10615-018-0651-z>
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology, 42*, 155–162. <http://dx.doi.org/10.1037/h0036215>
- Boldry, J., Wood, W., & Kashy, D. A. (2001). Gender stereotypes and the evaluation of men and women in military training. *Journal of Social Issues, 57*, 689–705. <http://dx.doi.org/10.1111/0022-4537.00236>
- Bosson, J. K., Vandello, J. A., Burnaford, R. M., Weaver, J. R., & Arzu Wasti, S. (2009). Precarious manhood and displays of physical aggression. *Personality and Social Psychology Bulletin, 35*, 623–634. <http://dx.doi.org/10.1177/0146167208331161>
- Bryan, C. J., & Morrow, C. E. (2011). Circumventing mental health stigma by embracing the warrior culture: Lessons learned from the Defender's Edge program. *Professional Psychology: Research and Practice, 42*, 16–23. <http://dx.doi.org/10.1037/a0022290>
- Caddick, N., Smith, B., & Phoenix, C. (2015). Male combat veterans' narratives of PTSD, masculinity, and health. *Sociology of Health and Illness, 37*, 97–111. <http://dx.doi.org/10.1111/1467-9566.12183>
- Connell, R. W., & Messerschmidt, J. W. (2005). Hegemonic masculinity: Rethinking the concept. *Gender and Society, 19*, 829–859. <http://dx.doi.org/10.1177/0891243205278639>
- Cox, D. W., & O'Loughlin, J. (2017). Posttraumatic stress mediates traditional masculinity ideology and romantic relationship satisfaction in veteran men. *Psychology of Men and Masculinity, 18*, 382–389. <http://dx.doi.org/10.1037/men0000067>
- Eckerlin, D. M., Kovalesky, A., & Jakupcak, M. (2016). Military sexual trauma in male service members. *The American Journal of Nursing, 116*, 34–43. <http://dx.doi.org/10.1097/01.NAJ.0000494690.55746.d9>
- Eisler, R. M., & Skidmore, J. R. (1987). Masculine gender role stress. Scale development and component factors in the appraisal of stressful situations. *Behavior Modification, 11*, 123–136. <http://dx.doi.org/10.1177/01454455870112001>
- Elder, W. B., Domino, J. L., Mata-Galán, E. L., & Kilmartin, C. (2017). Masculinity as an avoidance symptom of posttraumatic stress. *Psychology of Men and Masculinity, 18*, 198–207. <http://dx.doi.org/10.1037/men0000123>
- Foa, E. B., Hembree, E. A., & Rothbaum, B. O. (2007). *Prolonged exposure therapy for PTSD: Emotional processing of traumatic experiences: Therapist guide*. New York, NY: Oxford University Press. <http://dx.doi.org/10.1093/med:psych/9780195308501.001.0001>
- Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin, 99*, 20–35. <http://dx.doi.org/10.1037/0033-2909.99.1.20>
- Frewen, P. A., Dozois, D. J., Neufeld, R. W., & Lanius, R. A. (2008). Meta-analysis of alexithymia in posttraumatic stress disorder. *Journal of Traumatic Stress, 21*, 243–246. <http://dx.doi.org/10.1002/jts.20320>
- Garcia, H. A., Finley, E. P., Lorber, W., & Jakupcak, M. (2011). A preliminary study of the association between traditional masculine behavioral norms and PTSD symptoms in Iraq and Afghanistan veterans. *Psychology of Men and Masculinity, 12*, 55–63. <http://dx.doi.org/10.1037/a0020577>
- Garside, R. B., & Klimes-Dougan, B. (2002). Socialization of discrete negative emotions: Gender differences and links with psychological distress. *Sex Roles, 47*, 115–128. <http://dx.doi.org/10.1023/A:1021090904785>
- Gilbar, O., Dekel, R., Spector-Mersel, G., & Levi, O. (2019). The crisis in achieving a sense of manhood among Israeli veterans who suffer from posttraumatic stress symptoms. *Psychology of Men and Masculinity, 20*, 93–103. <http://dx.doi.org/10.1037/men0000148>
- Haagen, J. F., Smid, G. E., Knipscheer, J. W., & Kleber, R. J. (2015). The efficacy of recommended treatments for veterans with PTSD: A meta-regression analysis. *Clinical Psychology Review, 40*, 184–194. <http://dx.doi.org/10.1016/j.cpr.2015.06.008>
- Heath, P. J., Seidman, A. J., Vogel, D. L., Cornish, M. A., & Wade, N. G. (2017). Help-seeking stigma among men in the military: The interaction of restrictive emotionality and distress. *Psychology of Men and Masculinity, 18*, 193–197. <http://dx.doi.org/10.1037/men0000111>
- Helmer, D. A., Rossignol, M., Blatt, M., Agarwal, R., Teichman, R., & Lange, G. (2007). Health and exposure concerns of veterans deployed to Iraq and Afghanistan. *Journal of Occupational and Environmental Medicine, 49*, 475–480. <http://dx.doi.org/10.1097/JOM.0b013e318042d682>
- Herbert, M. S. (1998). *Camouflage isn't only for combat: Gender, sexuality, and women in the military*. New York: NYU Press.
- Herrera, C. J., Owens, G. P., & Mallinckrodt, B. (2013). Traditional machismo and caballerismo as correlates of posttraumatic stress disorder, psychological distress, and relationship satisfaction in Hispanic veterans. *Journal of Multicultural Counseling and Development, 41*, 21–35. <http://dx.doi.org/10.1002/j.2161-1912.2013.00024.x>
- Hoge, C. W., Grossman, S. H., Auchterlonie, J. L., Riviere, L. A., Milliken, C. S., & Wilk, J. E. (2014). PTSD treatment for soldiers after combat deployment: Low utilization of mental health care and reasons for dropout. *Psychiatric Services, 65*, 997–1004. <http://dx.doi.org/10.1176/appi.ps.201300307>
- Hundt, N. E., Helm, A., Smith, T. L., Lamkin, J., Cully, J. A., & Stanley, M. A. (2018). Failure to engage: A qualitative study of veterans who decline evidence-based psychotherapies for PTSD. *Psychological Services, 15*, 536–542. <http://dx.doi.org/10.1037/ser0000212>
- Jakupcak, M., Blais, R. K., Grossbard, J., Garcia, H., & Okiishi, J. (2014). "Toughness" in association with mental health symptoms among Iraq and Afghanistan war veterans seeking Veterans Affairs health care. *Psychology of Men and Masculinity, 15*, 100–104. <http://dx.doi.org/10.1037/a0031508>
- Jakupcak, M., Osborne, T. L., Michael, S., Cook, J. W., & McFall, M. (2006). Implications of masculine gender role stress in male veterans with posttraumatic stress disorder. *Psychology of Men and Masculinity, 7*, 203–211. <http://dx.doi.org/10.1037/1524-9220.7.4.203>
- Juan, M. J. D., Nunnink, S. E., Butler, E. O., & Allard, C. B. (2017). Gender role stress mediates depression among veteran men with military sexual trauma. *Psychology of Men and Masculinity, 18*, 243–250. <http://dx.doi.org/10.1037/men0000120>
- Kimmel, M. (1997). Masculinity as homophobia. In M. Gergen & S. Davis (Eds.), *Toward a new psychology of gender* (pp. 147–151). New York, NY: Routledge.
- Kimmel, M., & Messner, M. (Eds.). (2001). Boyhood, organized sports, and the construction of masculinities. *Men's lives* (pp. 421–426). Boston, MA: Allyn & Bacon.
- Kivari, C. A., Oliffe, J. L., Borgen, W. A., & Westwood, M. J. (2018). No man left behind: Effectively engaging male military veterans in counseling. *American Journal of Men's Health, 12*, 241–251. <http://dx.doi.org/10.1177/1557988316630538>
- Kmet, L. M., Lee, R. C., & Cook, L. S. (2004). *Standard quality assessment criteria for evaluating primary research papers from a variety of fields*. Alberta, Canada: Alberta Heritage Foundation for Medical Research. <http://dx.doi.org/10.7939/r37m04f16>
- Lawson, K. M., Crouter, A. C., & McHale, S. M. (2015). Links between family gender socialization experiences in childhood and gendered occupational attainment in young adulthood. *Journal of Vocational Behavior, 90*, 26–35. <http://dx.doi.org/10.1016/j.jvb.2015.07.003>
- Levant, R. F., & Richmond, K. (2008). A review of research on masculinity ideologies using the Male Role Norms Inventory. *Journal of Men's Studies, 15*, 130–146. <http://dx.doi.org/10.3149/jms.1502.130>
- McDermott, R. C., Currier, J. M., Naylor, P. D., & Kuhlman, S. T. (2017). Student veterans' self-stigma of seeking help: Contributions of painful self-conscious emotions, traditional masculine norms, and war-zone service. *Psychology of Men and Masculinity, 18*, 226–237. <http://dx.doi.org/10.1037/men0000117>

- McHugh, M. L. (2012). Interrater reliability: The kappa statistic. *Biochemistry Medica*, 22, 276–282. <http://dx.doi.org/10.11613/BM.2012.031>
- Mittal, D., Drummond, K. L., Blevins, D., Curran, G., Corrigan, P., & Sullivan, G. (2013). Stigma associated with PTSD: Perceptions of treatment seeking combat veterans. *Psychiatric Rehabilitation Journal*, 36, 86–92. <http://dx.doi.org/10.1037/h0094976>
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Journal of Clinical Epidemiology*, 62, 1006–1012. <http://dx.doi.org/10.1016/j.jclinepi.2009.06.005>
- Monteith, L. L., Gerber, H. R., Brownstone, L. M., Soberay, K. A., & Bahraini, N. H. (2019). The phenomenology of military sexual trauma among male veterans. *Psychology of Men and Masculinity*, 20, 115–127. <http://dx.doi.org/10.1037/men0000153>
- Moore, S. A., Zoellner, L. A., & Mollenholt, N. (2008). Are expressive suppression and cognitive reappraisal associated with stress-related symptoms? *Behaviour Research and Therapy*, 46, 993–1000. <http://dx.doi.org/10.1016/j.brat.2008.05.001>
- Morrison, J. A. (2012). Masculinity moderates the relationship between symptoms of PTSD and cardiac-related health behaviors in male veterans. *Psychology of Men and Masculinity*, 13, 158–165. <http://dx.doi.org/10.1037/a0024186>
- Nguyen, C. M., Liu, W. M., Phan, T. T., Pittsinger, R., Casper, D., & Alt, M. (2014). Vietnamese military men's perceptions of the long-term psychological effects of reeducation camps. *Psychology of Men and Masculinity*, 15, 407–418. <http://dx.doi.org/10.1037/a0034731>
- O'Neil, J. M. (2012). The psychology of men: Theory, research, clinical knowledge, and future directions. In E. Altmaier & J. Hansen (Eds.), *Oxford handbook of counseling psychology* (pp. 375–408). New York, NY: Oxford University Press.
- Ozer, E. J., Best, S. R., Lipsey, T. L., & Weiss, D. S. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis. *Psychological Bulletin*, 129, 52–73. <http://dx.doi.org/10.1037/0033-2909.129.1.52>
- Pierce, P. E. (2006). The role of women in the military. In T. W. Britt, A. B. Adler, & C. A. Castro (Eds.), *The psychology of serving in peace and combat* (pp. 97–118). Military life. Westport, CT: Greenwood.
- Pleck, J. H. (1995). The gender role strain paradigm. An update. In R. F. Levant & W. S. Pollack (Eds.), *A new psychology of men* (pp. 11–32). New York, NY: Basic Books.
- Pleck, J. H., Sonenstein, F. L., & Ku, L. C. (1993). Masculinity ideology: Its impact on adolescent males' heterosexual relationships. *Journal of Social Issues*, 49, 11–29. <http://dx.doi.org/10.1111/j.1540-4560.1993.tb01166.x>
- Resick, P. A., Monson, C. M., & Chard, K. M. (2016). *Cognitive processing therapy for PTSD*. New York, NY: Guilford Press.
- Richardson, L. K., Frueh, B. C., & Acierno, R. (2010). Prevalence estimates of combat-related post-traumatic stress disorder: Critical review. *Australian and New Zealand Journal of Psychiatry*, 44, 4–19. <http://dx.doi.org/10.3109/00048670903393597>
- Scheinfeld, D. E., Rochlen, A. B., & Russell, M. L. (2017). The impact of outward bound programming on psychosocial functioning for male military veterans. *Psychology of Men and Masculinity*, 18, 400–408. <http://dx.doi.org/10.1037/men0000066>
- Schnurr, P. P., Friedman, M. J., & Rosenber, S. D. (1993). Premilitary MMPI scores as predictors of combat-related PTSD symptoms. *The American Journal of Psychiatry*, 150, 479–483. <http://dx.doi.org/10.1176/ajp.150.3.479>
- Sharp, M. L., Fear, N. T., Rona, R. J., Wessely, S., Greenberg, N., Jones, N., & Goodwin, L. (2015). Stigma as a barrier to seeking health care among military personnel with mental health problems. *Epidemiologic Reviews*, 37, 144–162. <http://dx.doi.org/10.1093/epirev/mxu012>
- Silva, J. M. (2008). A new generation of women? How female ROTC cadets negotiate the tension between masculine military culture and traditional femininity. *Social Forces*, 87, 937–960. <http://dx.doi.org/10.1353/sof.0.0138>
- Stecker, T., Fortney, J. C., Hamilton, F., & Ajzen, I. (2007). An assessment of beliefs about mental health care among veterans who served in Iraq. *Psychiatric Services*, 58, 1358–1361. <http://dx.doi.org/10.1176/ps.2007.58.10.1358>
- Street, A. E., & Dardis, C. M. (2018). Using a social construction of gender lens to understand gender differences in posttraumatic stress disorder. *Clinical Psychology Review*, 66, 97–105. <http://dx.doi.org/10.1016/j.cpr.2018.03.001>
- Swain, J. (2016). Changing the identities of young army recruits and new ways of looking at hegemonic forms of military masculinity. *Culture, Society and Masculinities*, 8, 1–19.
- Tajfel, H. (1982). Social psychology of intergroup relationship. *Annual Review of Psychology*, 33, 1–39. <http://dx.doi.org/10.1146/annurev.ps.33.020182.000245>
- Tanielian, T. L., & Jaycox, L. (2008). *Invisible wounds of war: Psychological and cognitive injuries, their consequences, and services to assist recovery*. Santa Monica, CA: Rand Corporation.
- Thomas, R. M. (2001). *Recent theories of human development*. Thousand Oaks, CA: Sage.
- Thompson, E. H., & Bennett, K. M. (2015). Measurement of masculinity ideologies: A (critical) review. *Psychology of Men and Masculinity*, 16, 115–133. <http://dx.doi.org/10.1037/a0038609>
- Thompson, E. H., Jr., & Pleck, J. H. (1986). The structure of male role norms. *American Behavioral Scientist*, 29, 531–543. <http://dx.doi.org/10.1177/000276486029005003>
- Thompson, E. H., & Pleck, J. H. (1995). Masculinity ideologies: A review of research instrumentation on men and masculinities. In R. F. Levant & W. S. Pollack (Eds.), *A new psychology of men* (pp. 129–163). New York, NY: Basic Books.
- Vogt, D. (2011). Mental health-related beliefs as a barrier to service use for military personnel and veterans: A review. *Psychiatric Services*, 62, 135–142. http://dx.doi.org/10.1176/ps.62.2.pss6202_0135
- Vogt, D., Smith, B. N., Fox, A. B., Amoroso, T., Taverna, E., & Schnurr, P. P. (2017). Consequences of PTSD for the work and family quality of life of female and male U.S. Afghanistan and Iraq War veterans. *Social Psychiatry and Psychiatric Epidemiology*, 52, 341–352. <http://dx.doi.org/10.1007/s00127-016-1321-5>
- Voller, E., Polusny, M. A., Noorbaloochi, S., Street, A., Grill, J., & Murdoch, M. (2015). Self-efficacy, male rape myth acceptance, and devaluation of emotions in sexual trauma sequelae: Findings from a sample of male veterans. *Psychological Services*, 12, 420–427. <http://dx.doi.org/10.1037/ser0000046>
- Watts, B. V., Schnurr, P. P., Mayo, L., Young-Xu, Y., Weeks, W. B., & Friedman, M. J. (2013). Meta-analysis of the efficacy of treatments for posttraumatic stress disorder. *Journal of Clinical Psychology*, 74, e541–e550. <http://dx.doi.org/10.4088/JCP.12r08225>
- West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender and Society*, 1, 125–151. <http://dx.doi.org/10.1177/0891243287001002002>
- Wong, Y. J., Ho, M. R., Wang, S. Y., & Miller, I. S. (2017). Meta-analyses of the relationship between conformity to masculine norms and mental health-related outcomes. *Journal of Counseling Psychology*, 64, 80–93. <http://dx.doi.org/10.1037/cou0000176>

Received July 18, 2019

Revision received December 12, 2019

Accepted December 13, 2019 ■