

Masculinity Contest Culture: Harmful for Whom? An Examination of Emotional Exhaustion

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The relationship between masculinity contest culture (MCC) and emotional exhaustion was examined with hypotheses informed by the job demands-resources model. Additionally, trait competitiveness and gender were considered as predictors within a three-way interaction model informed by social role theory. Hypotheses were tested using a two-timepoint survey with a sample of 494 full-time employed adults. Results indicate MCC relates to emotional exhaustion. Support is also provided for a three-way interaction between overall MCC, trait competitiveness, and gender with men with lower trait competitiveness displaying the strongest positive relationship. Overall, results suggest MCC operates as a stressor with the potential to harm psychological well-being and that the strength of this relationship varied based on gender and trait competitiveness. Specifically, higher trait competitiveness buffered relationships between MCC and exhaustion for men but intensified this relationship for women. Implications for employee well-being and disparate health outcomes across groups are discussed.

Keywords: workplace culture, competition, gender, emotional exhaustion

Masculinity contest culture (MCC) is a term that describes organizations in which norms, practices, and values centered on competition and dominance in line with traditional masculinity ideals are promoted and promulgated (Berdahl et al., 2018). Moreover, employees in industries such as law enforcement, firefighting, consulting, and finance report alignment between their workplace and this definition (Rawski & Workman-Stark, 2018; Reid et al., 2018) underscoring its relevance. Notably, previous theorizing posits individuals receive rewards for subscribing to masculine ideals within MCC environments (Berdahl et al., 2018); through this, engaging in masculine behaviors and competing within masculinity contests become critical to career success within such environments. In line with this, Glick et al. also state “because masculinity norms reflect a system of male dominance, women may be especially disadvantaged and negatively affected by masculinity contest cultures” (2018, p. 452) situating women as particularly vulnerable to the negative effects of this kind of environment.

However, masculinity is notoriously precarious even for men (Bosson & Vandello, 2011), positioning one’s status as aligning with related masculinity-centric workplace norms and expectations in regular jeopardy regardless of one’s gender. Accordingly, we expect this instability in one’s status is a stressor for individuals

within MCCs with relevance for strains, such as emotional exhaustion, as individuals compete for a precarious status and cope with the consistent threat of loss of a status that is crucial for workplace success. Notably, perceived threat to personal status is a predictor of emotional exhaustion (Glaser & Hecht, 2013), supporting our expectations. Moreover, early examinations of MCC indicate working within an organization defined by these masculine ideals is associated with negative attitudes and behaviors (e.g., Glick et al., 2018; Koc et al., 2021; Rawski & Workman-Stark, 2018) providing additional evidence for the expected stressor–strain relationships of MCC. While such relationships are backed by the existent literature, research has yet to consider the role gender and competitiveness play in such relationships. This is a nontrivial omission given both gender and competition are inherent in the discussion of MCC. More specifically, while a desire to compete may be a resource within an environment that encourages competition, it is also important to note competition is a prescribed masculine trait (Prentice & Carranza, 2002). Accordingly, competitiveness may differently moderate relationships from MCC to strains for men and women within MCC environments that are defined not just by contests but by masculinity contests specifically. In an example, competitiveness may benefit men within these environments as the nature of the

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contests align with their gender identity, but harm women within these environments as they are compelled to engage in behaviors that violate their gender identity. Thus, a three-way interaction may emerge with ramifications for MCC theory development.

The objective of the present study is to advance the existing MCC literature in line with the above expectations with hypotheses informed by the job demands-resources model (JDRM; Bakker & Demerouti, 2007) and by social role theory (Eagly, 1987). We posit MCC is a competition-driven stressor that relates to greater strain in line with JDRM, building on past research (e.g., Glick et al., 2018; Rawski & Workman-Stark, 2018). We also hypothesize relationships from MCC to strain vary between individuals with hypotheses further informed by social role theory. Specifically, preference for competition may be a resource that buffers the stressor-strain relationship given the embedded competitive nature of this workplace environment. However, women and men may differently experience these competitions, allowing for a three-way interaction between MCC, gender, and trait competitiveness to emerge. Through this examination, greater nuance regarding variation in the strength of MCC as a stressor will be provided.

Our study makes several meaningful contributions to the existing literature via these objectives. First, we examine how MCC relates to emotional exhaustion, providing additional evidence of the health-related implications of working in such an environment; this is important as it provides a more complete understanding of how MCC relates to the work and life quality of employees. Second, we expand the theoretical understanding of MCC by simultaneously testing both gender and trait competitiveness as moderators of the MCC to emotional exhaustion relationship to determine for whom these cultures may be more or less harmful. Specifically, we test the degree self-reported gender and alignment with prescribed stereotypes pertaining to gender (i.e., men as being more competitive than women) are relevant factors in the prediction of MCC to strain relationships. Thus, we provide a more precise examination of the role prescribed stereotypes and alignment with these stereotypes play in the stressor-strain relationship. Moreover, these results may have implications related to disparate health outcomes when individuals from various demographic groups are exposed to MCC. Regression analyses were conducted using a two-wave survey of 494 employees to examine these relationships.

Background

Recent framings of the workplace posit masculinity contests are commonplace (Berdahl et al., 2018). Specifically, the term MCC describes workplace cultures wherein “an individual’s or group’s status and power within an organization is associated with the insistent display of masculinity and winning masculinity contests against others” (Berdahl et al., 2018, pp. 430–431). These shows of masculinity align with historical tenets of gender stereotypes of masculinity (Eagly, 1987; Prentice & Carranza, 2002), such as being cutthroat, strong, work-oriented, and unemotional. More specifically, MCC focuses attention on the masculine gender stereotypes that are often considered “toxic” reflecting a need to compete with and impose one’s will upon others (Kupers, 2005). Moreover, masculinity contests are common within these cultures and are defined as a “zero-sum competition played according to rules defined by masculine norms (e.g., displaying strength, showing no weakness or doubt)” within the seminal work on the topic (Berdahl et al., 2018, p. 424).

Moreover, research also supports MCC can be conceptualized as a higher order single-factor construct or as having four lower level facets worthy of individual consideration. Specifically, Glick et al. (2018) conceptualized MCC as consisting of four distinct but highly correlated masculine workplace norms: “show no weakness,” “strength and stamina,” “put work first,” and “dog eat dog.” “Show no weakness” refers to perceptions that doubts, humility, and any displays of feminine emotions must be stifled within the workplace; “strength and stamina” refers to perceptions that physical gifts (i.e., size, strength, stamina) are key for workplace respect and status; “put work first” refers to the notion that family and nonwork activities should not interfere with work; last, “dog eat dog” refers to the characterization of the workplace as a hypercompetitive environment wherein coworkers are competitors who must be defeated rather than colleagues (Berdahl et al., 2018).

Importantly, work is a venue used to display masculinity under the broader MCC framework, and, relatedly, MCC is positioned as a competitive stressor as individuals exert energy to succeed in contests related to traditional masculinity in order to reap rewards (Berdahl et al., 2018). Past research shows engaging in competition is related to physiological stress in the form of greater cortisol (Fernandez-Fernandez et al., 2015; Gonzalez-Bono et al., 1999), supporting the notion workplace competition can act as a potential stressor. Moreover, it is notable competitions within MCC center on the concept of masculinity. This distinguishing feature of competition is crucial as masculinity is theorized as a status that is hard to earn and easy to lose as well as a status that must be consistently publicly observed to be maintained (Bosson & Vandello, 2011; Vandello & Bosson, 2013). Accordingly, one’s status as being masculine and “aligning” with MCC expectations may also be precarious, and, thus, emotionally charged events emerge as individuals cope with concerns related to the potential loss of a status that is crucial to success within these environments. We build upon this literature and frame MCC as a stressor with relevance for strains related to emotions. Moreover, alignment with these masculine ideals is thought to facilitate career success within these cultures. Thus, earning a status as sufficiently “masculine” is desirable for all individuals and potentially expands the stressor experiences related to the precarious nature of one’s masculinity status (reviewed in Vandello & Bosson, 2013) to include not only men but all who work within high MCC environments. Prior research shows higher perceptions of MCC relate to undesirable individual and organizational outcomes such as greater toxic leadership and turnover intentions as well as lower job satisfaction, organizational citizenship behaviors, psychological safety, and health in samples that were not limited to one gender (Glick et al., 2018; Koc et al., 2021; Rawski & Workman-Stark, 2018; Workman-Stark, 2021) providing further support for this expectation of MCC as a general stressor.

The Relationship Between MCC and Emotional Exhaustion

Our hypotheses are informed by JDRM in line with the framing of MCC as a workplace stressor. Notably, both demands and resources are defined broadly with job demands consisting of aspects of one’s work life that require physical or psychological efforts to address, while resources consist of aspects of one’s work and/or nonwork life that assist individuals with achieving work-related goals or coping under JDRM (Bakker & Demerouti, 2007). A central tenet of JDRM

is demands related to strain outcomes such as anxiety, fatigue, negative affect, and counterproductive work behaviors (Pindek et al., 2019). Meta-analytic results provide support for this expected relationship with estimated significant relationships from demands to general strain as well as to more specific subtypes of strain such as behavioral (e.g., counterproductive work behaviors), physical (e.g., somatic complaints), and psychological (e.g., burnout; Gonzalez-Mulé et al., 2021; Nixon et al., 2011; Pindek et al., 2019; N. P. Podsakoff et al., 2007).

MCC can be considered a job demand given it is a specific type of culture steeped in competition (Berdahl et al., 2018) and competitions increase effort (DiMenichi & Tricomi, 2015). However, strain types vary and may have greater relevance for one stressor than another (Nixon et al., 2011). Emotional exhaustion is a strain marked by a feeling of being emotionally overexerted or “drained” (Wright & Cropanzano, 1998) and is a conceptually relevant outcome of MCC. Specifically, masculinity is precarious, hard to earn, and must be constantly earned to be maintained (Vandello & Bosson, 2013). Accordingly, MCC environments potentially drain emotional reservoirs as individuals compete along these lines and cope with the consistent threat of loss of a status that is crucial for workplace success. Past research supports relationships between threats to one’s status and emotional exhaustion (Glaser & Hecht, 2013; Halbesleben et al., 2013). Moreover, this stressor experience of competing to hold a tenuous status is not expected to be limited to one gender but experienced by all who work within high MCC workplaces. This is expected given alignment with related masculine ideals is thought to facilitate career success within these environments (Berdahl et al., 2018). MCC environments are also defined by norms related to viewing others as competitors, stifling any “feminine” emotions, working to exhaustion, and putting work first (Berdahl et al., 2018; Glick et al., 2018) potentially creating additional interpersonal and resource-related stressors as individuals seek to align with behavioral norms derived from “toxic” masculinity. Accordingly, both men and women working within a high MCC environment may experience intense emotional events that deplete their energy reservoirs, such as coping with a costly loss in a competition or faking emotions to avoid a display of weakness. This expectation is further supported by previous findings of positive relationships from job demands and workplace competition to emotional exhaustion (Alarcon, 2011; Kalra et al., 2021). Taken together, MCC is expected to relate to greater emotional exhaustion.

Hypothesis 1: Employee ratings of overall MCC are positively related to their emotional exhaustion.

Gender and Competitiveness as Moderators of the MCC and Emotional Exhaustion Relationship

While we expect MCC relates to greater emotional exhaustion, it is unlikely effects will be uniform across all individuals. Given this, we investigate theoretically linked moderators. Specifically, both gender and trait competitiveness were considered as moderators of the MCC and emotional exhaustion relationship within a three-way interaction framework based on the embedded theoretical role gender and competition play in masculinity contests.

First, we theorize trait competitiveness acts as a resource that helps individuals cope with MCC. Specifically, preferring competition should make MCC environments less distressing as more

competitive individuals welcome competitions rather than view them as undesirable. Research supports this expectation and shows a preference for competing is a relevant consideration in the estimation of the degree competitive environments are detrimental to job attitudes and psychological well-being. Fletcher et al. (2008) reported trait competitiveness buffered the relationship from competitive work climate to job satisfaction such that those with lower competitiveness displayed a negative relationship, whereas those with higher trait competitiveness had an estimated relationship “near zero” (p. 909). Moreover, the interaction of competitive culture and trait competitiveness was also examined in relation to organizational commitment within this same study. Results showed competitive climates related to greater organizational commitment for those higher on competitiveness and lesser organizational commitment for those who were lower on competitiveness; this implies these types of environments may even relate to desirable outcomes for some individuals. However, while having greater trait competitiveness may help to buffer the effects of competitive environments, the strength of the buffering relationship may also depend on gender given social norms around competition. This is an especially relevant consideration for MCC given it is not only defined by competition but also by competitions related to alignment with masculine ideals.

More specifically, perceptions of MCC within one’s environment set the stage for various masculinity contests to occur by definition; thus, this form of culture is positioned as a stressor as individuals compete to earn and maintain a masculinity status that is precarious and can be lost at any time. Building on this, a stronger preference for competition should be a resource that lessens the stressor demands of having to compete. Indeed, those higher in trait competitiveness should find competitions less aversive than those who do not prefer to compete, buffering the harms of having to regularly compete. However, this theoretical link does not consider the boundary conditions that must be present for this interaction to operate as theoretically expected such as other individual differences. Theoretically, gender is one potentially important difference related to the interaction of MCC and competition. This expectation is based on social role theory, which states differences in behavior and preferences across gender emerge as individuals strive to meet the prescribed expectations of their gender to avoid social ramifications and punishments (Eagly, 1987). A noteworthy example of such an expectation is men are to be more competitive and masculine relative to women (Prentice & Carranza, 2002). Accordingly, gender is relevant to whether one “should” engage in masculinity contests under broader societal norms. Given findings posit experienced misalignment, and even the mere potential for misalignment, with gendered stereotypes are stressors that relate to strains (Meeussen & Van Laar, 2018; Pierce et al., 2013), this may be pertinent for the degree trait competitiveness is a resource within MCCs.

Taken together, this framework informs our hypothesis that a greater perception of one’s workplace as MCC will be a stressor for all individuals with stronger relationships present for those who are also reconciling a mismatch between their desired and expected responses to the opportunity to engage in masculinity contests. More specifically, we anticipate having low-trait competitiveness will allow for a stronger relationship between MCC and emotional exhaustion *among men*. We expect this as their gendered stereotype of being competitive and masculine places pressures on them to

compete in workplace masculinity contests despite an individual, trait-level aversion to competing. In other words, the environmental pressure to compete in these potentially career-defining masculinity contests is an unwanted demand that conflicts with their preferred behavior and thus relates to greater emotional exhaustion because they do not enjoy competing. We also anticipate having high-trait competitiveness will relate to a stronger relationship between MCC and emotional exhaustion *for women* as their innate desire to compete pushes them to engage in masculinity contests that require behaviors inherently in opposition to the expectations of femininity placed upon them by the larger society. That is, the opportunity to compete for a masculine status that contrasts with their prescribed expectations forces these women to choose between their status of being a woman or a natural desire to compete for women who enjoy competing relating to greater emotional exhaustion as they manage these conflicting desires. Notably, individuals must decide between aligning their behaviors with their prescribed gender norms or their personal preference as they are unable to simultaneously do both in these instances. Accordingly, we expect emotional resources will be drained as individuals navigate and cope with these decisions.

Hypothesis 2: There is an interaction between gender, trait competitiveness, and employee ratings of overall MCC predicting emotional exhaustion. For men, a stronger positive relationship between employee ratings of overall MCC and emotional exhaustion will be present when trait competitiveness is lower than when it is higher. For women, a stronger positive relationship between employee ratings of overall MCC and emotional exhaustion will be present when trait competitiveness is higher than when it is lower.

Method

Participants

Participants were employed (>20 hr per week for pay) adults (> 18 years old) recruited through multiple avenues (e.g., from alumni at a Southeastern University and through science, technology, engineering, or mathematics [STEM] professional organizations). Participants were compensated such that the first 24 participants at Time 1 were given a \$10 gift card for Amazon.com while the first 12 participants at Time 2 were given a \$25 gift card to Walmart.

Overall, 1,146 individuals completed Time 1. Of these, 246 were removed for failing at least one of our inclusion criteria. First, insufficient effort responding was checked with inclusion decisions informed by Huang et al. (2015). Specifically, 130 participants were flagged for incorrectly responding to any of our three attention check items (e.g., not answering strongly agree to the item "Please answer strongly agree to this question"), another 26 were flagged for providing inconsistent information (e.g., reporting that they worked over 20 hr per week in one item, but reporting a number under 20 when asked how many hours they worked per week), and zero were flagged for responding in under 2 s per question. Next, the "careless" package (Yentes & Wilhelm, 2018) within R (R Core Team, 2019) was used to detect participants who were outliers based on long string analysis. Longstring analyses examine the longest length of consecutive answers as well as the average length of consecutive answers. We planned to remove those who had outlier values related to the longest length and average length, but zero participants were

flagged. Last, seven individuals who identified as nonbinary were excluded given the focus on men and women within this study. Participants were asked at the end of Time 1 if they were willing to be sent a follow-up survey; of the remaining 983 participants, 900 responded "yes" and were sent the second survey.

Of the 900, 530 completed Time 2. Participants were again removed for insufficient effort responding. Specifically, 26 participants were flagged for failing an attention check item, zero were flagged for responding in under 2 s per question, and six were flagged as having outlier values for both longstring and average longstring. Overall, a sample of 498 participants who successfully completed both Time 1 and Time 2 remained. However, four participants did not provide responses to items related to at least one study construct and were removed from analyses leaving a sample of 494.

From a demographic standpoint, 70% of the final sample were women, the average age was 35.08 years old ($SD = 11.65$), and the average number of paid work hours per week was 38.80 ($SD = 10.92$). Individuals were allowed to select multiple response options pertaining to race; notably, 80% of the sample identified as White or Caucasian, 11% as Asian/Pacific Islander, 5% as African American, Black, or Afro-Caribbean, 7% as Hispanic or Latino, and 2% identified as being a member of another racial group. Additionally, the sample ranged in the level of education from high-school graduate to have a doctorate degree with the median participant holding a master's degree and 85% worked in a STEM industry. The sample also ranged in salary from under \$9,999 to over \$200,000 with the median participant reporting a salary in the \$60,000–\$69,999 range. Notably, the study was conducted in the United States, but there was no inclusion criterion for geographic location, and this information was not collected.

In addition to examining the makeup of our final sample, we also examined the makeup of those who were not included in the final sample. First, we compared the demographic makeup of those who were eligible for the final sample based on Time 1 response but were not in the final sample to those who were in the final sample using regression with a dummy code for continuance (0 = not included in the final sample, 1 = included in the final sample). Results largely did not indicate significant differences between the groups ($p > .05$). However, participants who persisted were slightly younger ($B = -2.17, p = .01$), more educated ($B = .15, p = .01$), and a smaller percentage of participants identified as Black ($B = -.05, p < .01$). While some differences were present, effect sizes are small and likely detected due to the large sample size (N for included in final sample = 494, N for not included in final sample = 489). Second, we tested for demographic differences related to who did ($N = 900$) and who did not consent ($N = 83$) to receive the Time 2 survey using the same statistical procedure; those who consented were generally younger ($B = -5.47, p < .001$), worked less hours ($B = -2.47, p = .04$), and a greater percentage identified as Asian ($B = .08, p = .01$).

Procedure

Participants responded to two online surveys that were temporally separated by a period of 2 weeks between waves. Notably, this multiple timepoint design and 2 week lag between responses were not intended to allow for tests of causality but rather to reduce concerns of common method variance artifacts that can bias statistical estimation when correlated variables are collected at the same

time such as mood effects (P. M. Podsakoff et al., 2003). Trait competitiveness, MCC, gender, and control variables were collected at Time 1 (in this respective order) and emotional exhaustion was collected at Time 2.

Measures

Employee ratings of *masculinity contest culture* (hereby referred to as MCC) were measured using eight items from the scale validation study conducted by Glick et al. (2018). Specifically, seven of the eight items from the recommended short scale were included with two items used for each subfacet. The lone exception was the suggested item that read “It’s important to be in good physical shape to be respected” was exchanged for the item that reads “Physically imposing people have more influence.” This change was made as we believed this more squarely reflected masculinity and better accounted for gender differences related to size. Notably, the items we swapped belonged to the same facet even though this decision does change our scale from the recommended scale for “strength and stamina.” Moreover, the factor structure of MCC aligned with past analyses (e.g., Glick et al., 2018) when using this alternative item with items loading onto their respective facets as detailed later in this article. Further, the reliability for this facet exceeded .70. Overall, the data suggest the use of this item was not detrimental to construct validity. Participants used this adapted scale to rate how representative statements were about their workplace on a 5-point scale that ranged from *not at all true* to *entirely true*. Alpha reliability was .81 for the overall MCC measure. Additionally, reliability was examined for each subfacet. A sample item for “dog eat dog” is “If you don’t stand up for yourself, people will step on you” and α reliability was .70. A sample item for “put work first” is “To succeed you can’t let family interfere with work” and α reliability was .72. A sample item for “strength and stamina” is “People who are physically smaller have to work harder to get respect” and α reliability was .77. A sample item for “show no weakness” is “Admitting you don’t know something looks weak” and α reliability was .65. Importantly, the stem “In my work environment” preceded all items.

Emotional exhaustion was measured using nine items ($\alpha = .89$) from the Maslach Burnout Inventory (Maslach & Jackson, 1981). A sample item is “I feel emotionally drained from my work” and items were scored on a 5-point *strongly disagree* to *strongly agree* scale.

Gender was self-reported using one item: “What gender do you identify with?” Response options included “woman” and “man” and were scored using a dummy code (woman = 0, man = 1, nonbinary = 2). Only data from those who identified as a man or as a woman were retained for analyses as previously outlined.

Trait competitiveness was measured using five items from Helmreich and Spence (1978). However, one item (“It annoys me when other people perform better than I do”) showed lower cross-correlations, a lower factor loading, and removal of this item improved α reliability. This item measures aversion to losing from a conceptual standpoint while the other items tap into desires to win and to compete. This item was removed given the conceptual differences as well as the statistical concerns leaving a four-item scale ($\alpha = .81$). A sample item is “I enjoy working in situations involving competition with others.” Items were scored on a 5-point *strongly disagree* to *strongly agree* scale.

Controls

Control variables were selected to inform on the effects above and beyond demographic effects. Only variables that were expected to relate to both the predictor and outcome variables were included in line with suggestions from Spector and Brannick (2011). Related to race, research supports that emotional exhaustion varies by racial group (Aarons et al., 2009) and that MCC is correlated with ethnicity (Glick et al., 2018), a concept tightly linked to race. Related to salary, past research has highlighted that men are paid more than women (Barroso & Brown, 2021), which may be a result of greater alignment with MCC. Additionally, salary can provide resources that individuals can use to cope with stressors, mitigating the emotional exhaustion experienced. Related to work hours, working more hours increases one’s exposure to one’s MCC work environment and inherently drains one’s nonwork time resource, which may relate to greater emotional exhaustion. Related to employment field, STEM environments are thought to be highly competitive (Baldwin, 2009; Seymour, 1995), which may relate to a greater prevalence of MCC compared to non-STEM fields as well greater emotional exhaustion in line with past research linking competition and strain (Fernandez-Fernandez et al., 2015). Moreover, STEM worker status may be especially relevant for this study given the focus on gender, and because STEM fields have typically been stereotyped as masculine fields (Gunderson et al., 2012; Kiefer & Sekaquaptewa, 2007). Accordingly, salary, race, work hours, and STEM worker status were included as controls based on these expectations.

Results

Data, syntax, and annotated output are publicly available (Regina & Allen, 2022).

The factor structure of MCC was tested prior to hypothesis testing. Confirmatory factor analysis was conducted in line with previous testing (Glick et al., 2018). Results are shown in Table 1 and support selection of a four-factor model. The higher order and correlated factors four-factor models had an approximately equivalent model fit. We choose to follow previous theoretical rationale (Glick et al., 2018) in choosing the higher order factors model. After the model of best fit for MCC was confirmed, the three scales used within this study (hierarchically modeled MCC, trait competitiveness, and emotional exhaustion) were modeled with the respective items loading onto only the appropriate variable. Fit was sufficient (root-mean-square error of approximation = .08, Comparative Fit Index = .89, Tucker–Lewis Index = .87), and, thus, we proceeded with our planned analyses.

Table 1
Masculinity Contest Culture Model Fit Statistics

Model name	χ^2	<i>df</i>	$\Delta\chi^2$	CFI	TLI	RMSEA
Four correlated factors	61.63	14		0.96	0.92	0.08
Higher order four factor	66.19	16	4.56 (2)	0.96	0.93	0.08
One factor	308.06	20	246.43 (6)**	0.76	0.67	0.17

Note. CFI = Comparative Fit Index; TLI = Tucker–Lewis Index; RMSEA = root-mean-square error of approximation. *N* = 494.

** *p* < .01.

Means, standard deviations, coefficient alphas, and correlations for the study variables are shown in Table 2.

Hypothesis Testing

Hypothesized relationships were tested using hierarchical regression.

Hypothesis 1 stated MCC is positively related to emotional exhaustion. A two-step hierarchical regression was conducted with control variables included in Model 1 and overall MCC added in Model 2 to test this hypothesis. Results (shown in Table 3) indicated a significant positive relationship between MCC and emotional exhaustion ($B = .56, p < .001$) providing support for Hypothesis 1.

Hypothesis 2 posed a three-way interaction between overall MCC, trait competitiveness, and gender. Two additional steps were added to our regression models (shown in Table 3). In Model 3, the three two-way interactions (MCC and gender, MCC and competitiveness, and gender and competitiveness) were added while the three-way interaction of competitiveness, gender, and MCC was added in Model 4. Specifically, interaction terms were created by multiplying the respective variables by one another. Results indicated a significant three-way interaction ($B = -.31, p = .02$). A simple slopes analysis was conducted (Table 4) and data were plotted (Figure 1) to help interpret the results. Results revealed a significant relationship with emotional exhaustion across both genders at one standard deviation below the mean, mean, and one standard deviation above the mean values for trait competitiveness. Notably, the strongest positive relationship was observed for men with lower trait competitiveness ($B = .90, p < .01$) while the strongest positive relationship for women was associated with higher trait competitiveness ($B = .57, p < .01$) as predicted. Taken together, results provide support for Hypothesis 2. Moreover, a comparison of the confidence intervals for the estimates for men with low-trait competitiveness [.61, 1.19] and women with

high-trait competitiveness [.41, .73] reveal little overlap reflecting a stronger relationship between MCC and emotional exhaustion for low-trait competitiveness men than for high-trait competitiveness women.

Supplemental Analyses

Results support a positive relationship between MCC and emotional exhaustion. However, it is possible that a detected significant relationship between MCC and emotional exhaustion may be driven by a strong relationship from one facet of MCC rather than by relationships from each of the facets to emotional exhaustion. This is especially notable given the factor structure of MCC is better fit by a hierarchical four-factor model rather than a singular factor as found both within this study and in past research (Glick et al., 2018). A supplemental analysis was conducted in multiple parts to assess this possibility. To begin, all four facets were included within one regression model (Table 5). Results support that all factors but “strength and stamina” ($B = .09, p = .06$) were significant positively related to emotional exhaustion ($p < .05$).

Next, an analysis of variance was conducted to compare the model using the higher order MCC variable as a predictor to this new model based on the individual four facets. Results revealed a nonsignificant difference between these models, $F(3, 481) = 1.06, p = .36$, providing support for the more parsimonious model using a composite score of MCC did not fit the data significantly worse than the facets model. Additionally, a dominance analysis was conducted using the dominance analysis package in R (Bustos Navarrete & Coutinho Soares, 2019) given the variation in the regression weights for the individual facets. Conceptually, dominance analyses provide greater information on the relative importance of each predictor. Results revealed the “show no weakness” facet explained the most variance associated with emotional exhaustion (7%), followed by the “dog eat dog” (5%), and “put work first” facets (5%) while the

Table 2

Means, Standard Deviations, Coefficient Alpha, and Correlations for the Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. MCC: overall	(.81)															
2. MCC: dog eat dog	.83	(.70)														
3. MCC: strength and stamina	.66	.41	(.77)													
4. MCC: show no weakness	.75	.51	.38	(.65)												
5. MCC: put work first	.75	.49	.27	.45	(.72)											
6. Focal gender	-.05	.00	.00	-.07	-.09	—										
7. Trait competitiveness	.08	.09	-.02	.08	.08	.05	(.81)									
8. Emotional exhaustion	.44	.35	.26	.38	.34	-.05	.04	(.89)								
9. Ethnicity: White	.03	.01	.00	-.02	.09	-.03	-.11	.08	—							
10. Ethnicity: Asian	-.06	-.08	-.02	-.03	-.04	-.05	.02	-.05	-.53	—						
11. Ethnicity: Black	.08	.12	-.02	.11	.02	-.04	.11	.03	-.37	-.08	—					
12. Ethnicity: Latino	.00	.00	.04	-.02	-.03	.05	.10	-.08	-.43	-.10	-.02	—				
13. Ethnicity: other	-.01	-.02	.02	.08	-.09	-.01	.00	.03	-.22	-.05	-.03	-.03	—			
14. Yearly salary	.02	.07	.03	.06	-.07	.15	-.02	-.03	.18	-.11	-.04	-.15	-.07	—		
15. Paid work hours per week	.17	.19	.06	.14	.10	.09	-.10	.09	.16	-.18	-.04	-.07	-.05	.50	—	
16. STEM worker	.02	-.02	.05	.01	.04	.04	.02	.11	.00	.06	-.09	.03	.05	.10	.00	—
Mean	1.88	2.34	1.56	1.62	1.99	.30	3.29	2.63	.80	.11	.05	.07	.02	8.03	38.80	.85
Standard deviation	.70	1.10	.84	.78	.99	.46	.96	.92	.40	.31	.21	.25	.13	5.36	10.92	.36

Note. $N = 494$. All correlations over ± 0.09 are statistically significant ($p < .05$). Gender was dummy coded (women = 0, men = 1). Ethnicity variables were dummy coded (0 = does not identify as a member of this ethnic group, 1 = does identify as a member of this ethnic group). STEM field was dummy coded (0 = does not work in STEM, 1 = works in STEM). MCC = masculinity contest culture; STEM = science, technology, engineering, or mathematics.

Table 3

Regression Results for Models Featuring Aggregate Masculinity Contest Culture as Predictor of Emotional Exhaustion

Variable	Model			
	(1)	(2)	(3)	(4)
Intercept	1.77**	1.12**	1.01*	1.51**
Ethnicity: White	0.33	0.21	0.21	0.20
Ethnicity: Asian	0.11	0.04	0.04	0.01
Ethnicity: Black	0.46	0.19	0.19	0.19
Ethnicity: Latino	−0.08	−0.18	−0.17	−0.17
Ethnicity: other	0.43	0.35	0.31	0.27
Salary	−0.02*	−0.02*	−0.02	−0.02*
Hours worked for pay	0.01**	0.00	0.00	0.00
STEM worker status	0.32**	0.28**	0.28**	0.26*
MCC		0.56**	0.56**	0.34
Gender			−0.14	−1.92*
Trait competitiveness			0.06	−0.08
MCC × Gender			0.16	1.15**
MCC × Competitiveness			−0.01	0.05
Trait Competitiveness × Gender			−0.06	0.50*
MCC × Trait Competitiveness × Gender				−0.31*
R^2	0.05	0.22	0.23	0.24
ΔR^2	—	0.17	0.01	0.01
F statistic	—	109.42**	0.47	5.68*

Note. Unstandardized β weights reported. Model 1 consists of only control variable. Model 2 adds MCC as a predictor. Model 3 adds the two-way interactions of gender, trait competitiveness, and MCC. Model 4 adds the three-way interaction of MCC, trait competitiveness, and gender. $N = 494$. MCC = masculinity contest culture; STEM = science, technology, engineering, or mathematics.

* $p < .05$. ** $p < .01$.

“strength and stamina” facet explained the least variance (3%) associated with emotional exhaustion. These findings suggest “show no weakness” is the subfacet that best predicts emotional exhaustion but that all subfacets have a unique contribution.

Additionally, research suggests women must display some degree of masculine behavior to succeed at work (e.g., agency) but receive backlash for displaying too much of such behaviors (Phelan & Rudman, 2010), which may have relevance for environments driven by masculinity contests. Accordingly, two additional regression models were examined using a subsample of only the 348 participants who identified as women. Specifically, control variables, MCC, trait competitiveness, and the interaction of MCC and trait competitiveness were entered as predictors of emotional exhaustion

in both models. Additionally, a second-degree polynomial term for trait competitiveness was entered within the first model; results did not support a significant relationship between this new predictor and emotional exhaustion ($B = -.78$, $p = .34$). The second model was identical to the previous model except the second-degree polynomial term for trait competitiveness was multiplied by MCC to create an additional interaction term which was also entered as a predictor; results did not support a significant relationship between this new predictor and emotional exhaustion ($B = 1.05$, $p = .31$).

Robustness Checks

We also reanalyzed our hypotheses in two ways to provide evidence results were driven by the variables of interest rather than by statistical decisions. First, we conducted an additional set of analyses to test the hypotheses without control variables. The statistical significance of the hypothesized predictors remained unchanged as did the direction of relationship between MCC and emotional exhaustion. This supports results pertaining to the moderated and unmoderated relationship between the overall MCC measure and emotional exhaustion are robust, retaining their statistical significance regardless of the inclusion of our theoretically selected control variables. Second, analyses were reconducted with the full five-item scale for trait competitiveness. Hypotheses remained supported and interpretations of supplemental analyses were consistent across the two scorings of competitiveness supporting that relationships were not driven by the decision to omit the one trait competitiveness item.

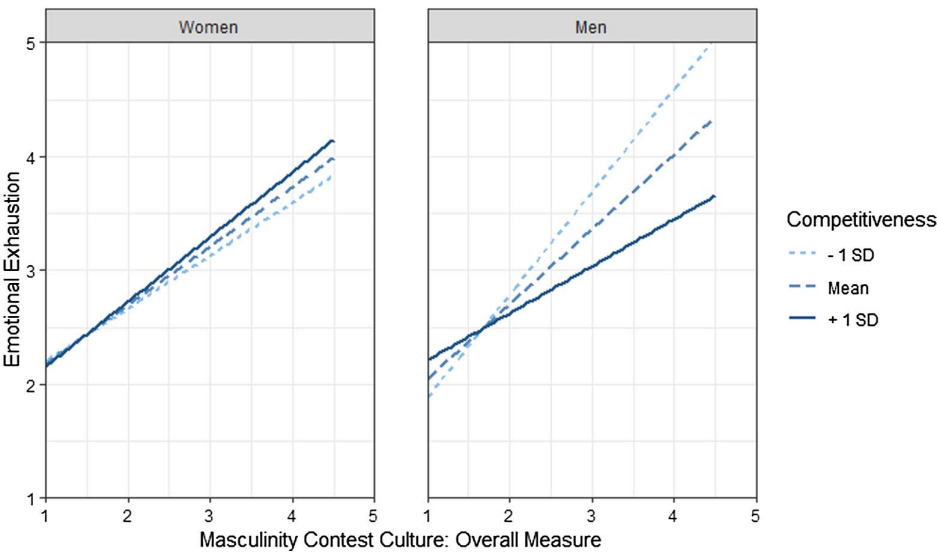
Table 4

Simple Slopes Tests for the Relationship of Overall MCC to Emotional Exhaustion as Moderated by Trait Competitiveness and Gender

Gender	Trait competitiveness		
	−1 <i>SD</i>	<i>M</i>	+1 <i>SD</i>
Women	.46 [.28, .64]	.52 [.40, .64]	.57 [.41, .73]
Men	.90 [.61, 1.19]	.66 [.44, .88]	.41 [.10, .72]

Note. Unstandardized β weights are reported. All estimates significant at $p < .01$. Confidence intervals reported within brackets and calculated using the following formula: $B \pm (1.96 \times SE)$, where B is the unstandardized β weight and SE is standard error. $N = 494$. MCC = masculinity contest culture; SE = standard error.

Figure 1
Interaction Visualization for Overall MCC



Note. MCC = masculinity contest culture. See the online article for the color version of this figure.

Discussion

We build on past research that supports MCC operates as a work stressor (e.g., Glick et al., 2018; Rawski & Workman-Stark, 2018) by examining how relationships between MCC and emotional exhaustion vary by gender and trait competitiveness with hypotheses informed by JDRM (Bakker & Demerouti, 2007) and social role theory (Eagly, 1987). Results suggest MCC has implications for

psychological well-being. Moreover, results supported the strength of this relationship varies based on one’s gender and preference for competition, providing an improved understanding of who may be adversely affected by this type of competitive workplace culture.

Specifically, MCC was related to greater emotional exhaustion providing evidence of the potential harms for those who work within a culture defined by masculine norms. This adds to our understanding of the role workplace culture, competition, and masculinity play in employee health and builds upon past research on the strains associated with MCC environments (Glick et al., 2018). This study also expands our understanding of MCC by blending ideas from the workplace psychology literature with the precarious manhood literature (Bosson & Vandello, 2011) positioning the contests pertaining to a tenuous masculinity status that MCC is driven by as a stressor. In line with this, it is relevant that concerns related to lost manhood are associated with undesirable effects such as greater aggressive tendencies, anxiety, feelings of threat, and risk-taking (Bosson et al., 2009; Vandello et al., 2008; Weaver et al., 2013) potentially relating MCC to organizational safety as well as to individual health. Moreover, we expand theories of precarious manhood to consider the circumstances under which women may suffer from the stressor effects of the precarious nature of masculinity.

Results also indicated gender and trait competitiveness work together to moderate the relationship from MCC to emotional exhaustion adding a layer of complexity to the MCC to strain relationship beyond that of previous research (e.g., Glick et al., 2018; Rawski & Workman-Stark, 2018). Results indicated lower trait competitiveness demonstrated the strongest positive relationship from MCC to emotional exhaustion among men while higher trait competitiveness demonstrated the strongest positive relationship from MCC to emotional exhaustion among women. This shows the important role gender and trait competitiveness play in determining the detriments of this type of workplace culture. Results imply not

Table 5
Regression Results for Model Using All MCC Facets as Predictors of Emotional Exhaustion

Variable	Model	
	(1)	(2)
Intercept	1.77**	1.14**
Ethnicity: White	0.33	0.20
Ethnicity: Asian	0.11	0.03
Ethnicity: Black	0.46	0.16
Ethnicity: Latino	−0.08	−0.18
Ethnicity: other	0.43	0.28
Salary	−0.02*	−0.02*
Hours worked for pay	0.01**	0.00
STEM worker status	0.32**	0.28**
MCC: dog eat dog		0.12**
MCC: strength and stamina		0.09
MCC: show no weakness		0.24**
MCC: put work first		0.13**
R^2	0.05	0.23
ΔR^2	—	0.18
F statistic	—	28.05**

Note. Unstandardized β weights are reported. Model 1 consists of only control variables. Model 2 adds each MCC subfacet as a predictor. $N = 494$. MCC = masculinity contest culture; STEM = science, technology, engineering, or mathematics.
* $p < .05$. ** $p < .01$.

only is one's gender relevant to the overall harms of engaging in masculinity contests but the degree to which one aligns with prescribed expectations is as well via detection of this significant three-way interaction.

Last, we expand on past research by providing an initial examination of the role of MCC facets in the prediction of emotional exhaustion within our supplemental analyses. We found the "strength and stamina" subfacet was not significantly related to emotional exhaustion when all subfacets were considered simultaneously. Results of the dominance analysis also suggested the other three subfacets explained up to two times the variance associated with emotional exhaustion compared to the "strength and stamina" subfacet with "show no weakness" explaining the most variance. This implies the most utility may be achieved by directing resources toward the mitigation of specific subfacets most strongly correlated with the outcomes of interest with relevance for future interventions designed to lessen MCCs. For example, emotional labor may be more strongly related to the "strength and stamina" and "put work first" facets than to the "dog eat dog" and "put work first" facets; thus, interventions seeking to decrease the relationship between MCC and emotional labor may consider changes that prioritize altering the former two facets rather than overall MCC. In another example, while "strength and stamina" was a lesser predictor of emotional exhaustion than the other subfacets, it may be an important predictor of another outcome such as physical exhaustion as individuals engage in physical exercise to meet the expectations of this subfacet.

Implications for Theory

We further the understanding of MCC and its role in the health and well-being for employees through several avenues. Perhaps most importantly, we show evidence both gender and trait competitiveness are relevant considerations. This provides initial evidence there may be boundary conditions (Busse et al., 2017) related to gender and competitiveness that must be met for the relationships between MCC and strains to occur. This also gives rationale to consider whether MCC is harmful for all individuals or only select employees and how these relationships vary by different strains and strain categories (e.g., psychological, physical, and behavioral strains) in future theory building.

Results also supported the relationship of MCC to emotional exhaustion was moderated by gender and competitiveness with the highest estimate present for men with lower trait competitiveness. These findings align with the notion that manhood is precarious and must be maintained through adherence to masculine ideals such as being competitive (Vandello & Bosson, 2013). This may explain why less competitive men are particularly vulnerable to the negative effects of MCC. Specifically, these men do not want to compete but may feel compelled to do so because of environmental and societal expectations, forcing them to either align with their prescribed stereotypes or to be made aware of their lack of masculinity and potentially threatening their manhood and livelihood. By comparison, results supported the relationship from MCC to emotional exhaustion intensified as women reported greater trait competitiveness. This sets the stage for proposing different models for how men and women experience working in MCC. Moreover, concerns related to earning a status of "masculine" in order to succeed at work may be a novel and unfamiliar stressor for women given the

contrasting "static" status of one's femininity once earned (Vandello et al., 2008). Future theorizing regarding working within MCC for women may consider accounting for individual differences and aspects of the environment that potentially act as resources that buffer harmful experiences; such aspects may include sexual orientation, gender presentation, or the presence of a mentor.

Limitations

First, our study design does not permit us to rule out the alternative causal flow, even though we pose emotional exhaustion as a result of MCC based on theory. Accordingly, we cannot rule out that it may instead be that emotional exhaustion predicts greater perceptions of MCC. Future MCC researchers should use within-person longitudinal designs that enable the testing of alternative causal relationships to address this (Zyphur et al., 2020). Second, MCC is an assessment of organizational culture, but we only examined participants' perceptions of organizational culture. Future MCC researchers can better account for this by using a design that incorporates data across several levels, such as by collecting data from multiple employees within organizations and then comparing the results across organizations or within workgroups, to yield an expanded understanding of the multilevel nature of the construct.

Third, we used the short-form version of the MCC scale. While past research has supported its use (Glick et al., 2018), estimates of relationships may be improved through use of the full scale. We also changed one item within this scale based on the relevance of items to gendered differences which may have altered our effect size estimation. In a similar vein, we frame the misalignment of prescribed gender stereotypes and preferred related behaviors as the explanation for the observed three-way interaction. We did not collect participant perceptions of their misalignment with their gender however, which may have provided additional information into the nature of this relationship. We also did not examine one's perception of their masculinity specifically, which may also yield interesting insights.

Fourth, we pose MCC as a stressor that directly relates to strain and is moderated by gender and trait competitiveness. However, it is plausible relationships from MCC to strain are better modeled via mediating variables not examined in this study. Potential mediating factors may include harassment, undermining, abusive supervision, the development of rivalry relationships, and increased awareness of the precariousness of one's masculinity status. Some mediators may also be especially relevant for one gender. For example, feelings of being inauthentic or perceptions of unfair evaluations or of experienced backlash may be more relevant for women than men. Similarly, women who engage in masculinity contests may become the target of ambivalent sexism (Glick & Fiske, 1997) as men seek to punish women who violate traditional gender roles (Berdahl, 2007). Additionally, while we examine two theoretical moderators of MCC, it is plausible other variables may further explain the nature of the relationships from MCC to strain such as one's standing and power within the organization.

Fifth, significant differences were detected among those who opted to participate in the later timepoints compared to those who did not. Those who consented were generally younger, worked less hours, and were more likely to identify as Asian. These differences were small in magnitude but may have emerged due to the nature of the electronic survey as well as the time commitment to complete the

later timepoints. Accordingly, results may best generalize to those in earlier career stages who are comfortable with technology.

Last, we limited our sample to only those who identified as a man or as a woman given the small sample size of nonbinary individuals. However, it is plausible those who do not align with traditional conceptualizations of men or women are at increased risk of mistreatment or harassment within environments that are dependent on alignment with such gender roles. Accordingly, the effect sizes reported in this study may be underestimated due to the lack of this perspective.

Future Research Directions

The existing research builds upon previous analyses of MCC by giving more nuanced consideration to the potential moderators of the relationship of MCC to strain. Several fruitful areas for additional expansion of this literature base are identified through these findings.

First, results supported men who did not align with their prescribed gender stereotype of being competitive showed stronger relationships to emotional exhaustion than did women and men who have a preference for competition. Future researchers should consider further examination of the role of competitiveness as a moderator of relationships from MCC to other strains and behavioral outcomes among men with hypotheses informed by precarious manhood theory (Vandello & Bosson, 2013). Greater use of this theoretical framework would provide a new perspective on the processes driving the relationships to strain. It would also provide a real-world environment within which to test tenets of this theory such as the premise that men avoid feminine-typed behaviors, which may have implications for office housework behaviors (Jang et al., 2021). While precarious manhood has received attention since its inception (Bosson et al., 2009; Bosson & Vandello, 2011; Weaver et al., 2013), most research has been conducted using experimental lab designs limiting the external validity of the theory (for exceptions, see Leavitt et al., 2022; Netchaeva et al., 2015). Research on MCC may provide an environment in which to expand the understanding of the role precarious manhood plays in the daily lives and the careers of men given the relevance of manhood for MCC. In a specific example, past findings show the unique challenges related to precarious manhood for women who lead men within the workplace (Netchaeva et al., 2015), given that this subversion of men into a subordinate position to a woman violates historical gender norms related to work. Notably, this violation of norms is not present for organizational leaders who are men, positioning precarious manhood as a potentially critical consideration within the perceptions and outcomes related to common working experiences.

Second, research is needed to examine how MCCs relate to employee outcomes over time. Individuals may adapt or habituate to this stressor over time lessening its impact. Alternatively, the effects of repeated exposure to MCC may compound over time relating to greater strain. Future researchers should investigate employee reactions and outcomes longitudinally to determine whether relationships are temporally stable or dynamic as well as how these relationships vary between employees. Daily diary designs could be used in a similar vein to improve our understanding of whether the relationships between MCC to strain are better modeled with MCC as a direct stressor or via indirect relationships from MCC to frequency of emotionally charged work experiences such as

undermining, incivility, or face/surface acting. Research using longitudinal designs could also consider examining how MCC emerges over time by combining both multilevel and within-person approaches and considering both top-down and bottom-up processes that effect MCC (Kozlowski & Chao, 2012); an improved understanding as to how MCC is cultivated or stifled would be achieved and information on the temporal order in which the subfacets emerge may be gathered through this.

Third, linear models were hypothesized and tested within this study. However, research supports model fit is not always optimized using linear modeling (e.g., Carter et al., 2016). For example, results support women must display some degree of the masculine traits that are traditional hallmarks of strong performers at work (e.g., agency) to succeed in the workplace but receive backlash for displaying too much of these masculine-typed behaviors (Phelan & Rudman, 2010). Accordingly, it is plausible that the relationship between competition and strain for women working in MCC environments may be more nuanced, such that women should engage in masculinity contests but only to a certain degree. Significant results were not detected for the second-degree polynomial term of trait competitiveness as a predictor of emotional exhaustion within our initial analyses of such relationships. Future researchers may consider using such methods within larger samples or in the prediction of other variables related to interpersonal interactions within MCCs, such as harassment or bullying.

Last, the results suggest future lines of inquiry are needed to identify actionable recommendations for practice. MCC is related to emotional exhaustion for both men and women regardless of their trait-level preference for competition. This suggests the solution to reduce strain within MCC environments is not simply to hire those who align with tenets of these environments (e.g., competitive men) but rather to alter cultural norms. While several researchers have offered suggestions for how MCC cultures can be changed, such as through training (Rawski & Workman-Stark, 2018) and through leaders developing aspirational visions for their companies that focus on shared collective values (Ely & Kimmel, 2018), research is needed that examines what type of change efforts are effective.

Conclusion

The present study advances the existing literature related to the effects of culture on psychological well-being. Specifically, the study provides evidence MCC operates as a workplace stressor with implications for emotional exhaustion and that the relationship is strongest among men lower in trait competitiveness. Future researchers should consider interventions or organizational factors that buffer these detrimental relationships as well as conducting longitudinal analyses to unravel how MCC unravels and relates to outcomes over time.

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