

## Domains of Masculine Gender Role Stress and Intimate Partner Violence in a Clinical Sample of Violent Men

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This study investigated the relationship between the specific factors of the Masculine Gender Role Stress (MGRS) scale and intimate partner violence among a clinical sample of violent men. Participants were 339 men court-mandated to attend violence intervention programs. After demonstrating that the 5-factor MGRS model evidenced strong fit in this sample, analyses revealed that MGRS total scores were associated with each form of intimate partner violence perpetration. However, subsequent analyses that regressed each form of aggression onto all 5 MGRS factors simultaneously revealed that different factors were responsible for each association. Specifically, gender role stress regarding failure to perform in work and sexual domains was the only factor associated with psychological aggression, gender role stress regarding appearing physically fit and not appearing feminine was the only factor associated with sexual coercion, and gender role stress regarding intellectual inferiority was the only factor associated with injury to partners. No single MGRS factor was uniquely associated with physical aggression. Implications are discussed in terms of the importance of examining specific domains of gender role stress when studying and treating partner violence.

**Keywords:** masculine gender role stress, intimate partner violence, violence intervention

Intimate partner violence (IPV) remains a prevalent national public health problem. Re-

sults from nationally representative samples have shown that between 12% and 20% of couples report sustaining or perpetrating IPV within the past year, and approximately two times as many report at least one episode of violence over the course of marriage (Schafer, Caetano, & Clark, 1998; Straus & Gelles, 1988, 1990). Whereas an extensive body of literature documents the wide range of biological, social, and psychological correlates of IPV (see Holtzworth-Munroe, Bates, Smutzler, & Sandin, 1997; Schumacher, Feldbau, Smith-Slep, & Heyman, 2001, for review), only recently has empirical effort been directed toward understanding how the psychology of men and masculinity is related to men's use of violence in intimate relationships. This research is heavily grounded in theory and suggests that IPV may stem partly from gender role socialization (see Moore & Stuart, 2005, for review). One commonly espoused theoretical perspective on masculine gender role development suggests

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that men feel intense demands to uphold gender role norms (e.g., appear strong, maintain control) and that aggressive behaviors may be reactions to the stress men experience in trying to abide by gender role expectations (Eisler, 1995; O'Neil & Nadeau, 1999; Pleck, 1995). Thus, when faced with stress due to perceived or actual challenges to their masculinity, some men may engage in violence to maintain their sense of male control and power (Eisler, 1995; Marshall, 1993).

One of the most frequently used measures of gender role stress in studies of IPV is the Masculine Gender Role Stress (MGRS) scale (Eisler & Skidmore, 1987), which assesses the extent to which men cognitively appraise stress when failing to uphold traditional masculine norms (e.g., being outperformed in a game by a woman). The MGRS scale assesses five empirically derived factors, as described by Eisler (1995). The Physical Inadequacy subscale reflects stress associated with an inability to meet masculine norms of physical fitness and appearance of manliness compared to other men. The Emotional Inexpressiveness subscale assesses stress associated with expressing one's emotions and dealing with other people's vulnerable emotions. The Subordination to Women subscale reflects stress associated with being outperformed by women, especially in work and sports. The Intellectual Inferiority subscale comprises items assessing stress associated with not being able to think rationally or not being sufficiently intelligent to handle a situation. Finally, the Performance Failure subscale reflects stress associated with potential failure in meeting masculine norms in work and sexual adequacy. As many men place a high priority on maintaining physical strength, power over women in work and intellectual domains, control over vulnerable emotions, and perceptions of sexual prowess (Eisler, 1995), it seems reasonable that stress from perceiving threat to one or more of these domains may result in tactics, such as violence against women, that may help maintain traditional masculine norms.

Moore and Stuart (2005) reviewed the available literature on the association between MGRS and IPV, revealing that total scores on the MGRS scale have been consistently associated with IPV. Yet, Mahalik, Aldarondo, Gilbert-Gokhale, and Shore (2005) appropriately questioned whether a "global masculinity is op-

erating in all forms of violence or whether specific masculinity dimensions are more informative predictors" (p. 627). Indeed, Locke and Mahalik (2005) found that masculinity norms reflecting power with women were strong predictors of sexual aggression, whereas norms reflecting emotional control and winning were not related to sexual aggression. Nevertheless, we are aware of no studies that have directly examined which specific factors of the MGRS scale are responsible for the associations observed between MGRS and IPV.

Therefore, to more precisely elucidate the relationship between aspects of gender role stress and types of IPV, the primary aim of the present study was to examine the relationship between MGRS total and subscale scores and IPV among a sample of men court-mandated to attend violence intervention programs. We recruited a clinical sample of violent men for several reasons. First, court-mandated men may be the most appropriate sample in which to investigate these issues, because they are the group most likely to engage in violence to maintain power and control. This notion is supported by other researchers (e.g., Johnson, 1995) who have argued that men who engage in IPV to maintain a sense of control are not represented in college and community samples. Second, by examining specific associations between MGRS factors and types of IPV in a clinical sample of violent men who may have long-standing patterns of violence and concerns about control and power, it may be possible to identify potential intervention and prevention targets to reduce IPV. Finally, despite its relevance to such samples, it remains unknown whether the MGRS scale is appropriate for use in clinical samples, as its factor structure has been examined on samples of college students. Thus, a secondary aim of this study was to examine the psychometric properties (i.e., factor structure and reliability) of the MGRS scale in a clinical sample of violent men.

## Method

### Participants

Participants were 339 men arrested for violence and court-referred to batterer intervention programs in Rhode Island. Twenty men refused to participate in the study (5.5%; 20/359). Par-

ticipants reported a mean (*SD*) age of 33.3 years (10.1) and education of 12.0 years (2.1); the average length of the men's relationships was 5.1 years (6.3). The sample was comprised of individuals from the following ethnic backgrounds: 70% Caucasian, 13% African American, 9% Hispanic, 2% Native American, 2% Asian/Pacific Islander, and 4% other.

## Measures

A demographics questionnaire gathered information, including age, duration of relationship, and number of batterer intervention sessions attended.

The MGRS scale (Eisler & Skidmore, 1987) is a 40-item self-report inventory that measures the degree to which men cognitively appraise the stress they would experience in situations that might challenge their masculinity (e.g., "Letting a woman take control of the situation"). Responses on each item can range from 0 (*not at all stressful*) to 5 (*extremely stressful*) and are summed for a total possible score of 200. Factor analysis revealed that MGRS items cluster around the following dimensions: Physical Inadequacy, Emotional Inexpressiveness, Subordination to Women, Intellectual Inferiority, and Performance Failure. A series of publications have examined the psychometric properties of the MGRS in college students. These studies have found that the MGRS demonstrated high 2-week test-retest reliability ( $r = .93$ ; Skidmore, 1988) and internal consistency reliability ( $\alpha = .88$  to  $.94$ ; Jakupcak, Lisak, & Roemer, 2002; Mahalik et al., 2005; McCreary et al., 1996; Thompson, 1991). There is also support for the construct validity of the MGRS scale, as evidenced by studies indicating that men score higher than women, scores are positively associated with other negative indices of the male role (e.g., anger, hostility) as well as cardiovascular reactivity to masculine-related stressors (Lash, Eisler, & Schulman, 1990), and scores are predictably unrelated to general self-perceptions of masculine identification (e.g., tough, assertive; Eisler & Skidmore, 1987; McCreary et al., 1996). With the exception of one study (McCreary et al., 1996), the MGRS scale demonstrated excellent psychometric properties. In the present study, Cronbach's alphas were sufficient for all subscales: Performance Failure

(.84), Subordination to Women (.80), Physical Inadequacy (.79), Intellectual Inferiority (.74), and Emotional Inexpressiveness (.68).

IPV was assessed with the Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The 78-item CTS2, which measures the behavior of both the respondent and the respondent's partner, includes four subscales: Psychological Aggression, Physical Assault, Sexual Coercion, and Injury. Straus et al. (1996) demonstrated adequate reliability and validity of the CTS2. In the present study, Cronbach's alphas for the Psychological Aggression, Physical Assault, and Sexual Coercion subscales were .77, .77, and .75, respectively; one item assessing sex without a condom was removed from the Sexual Coercion subscale because inclusion of this item reduced the internal consistency reliability to .52. The Cronbach's alpha for the Injury subscale was .37. We considered removing items from this subscale, but we retained the full subscale because removing items would have further reduced internal consistency. In the present study, the CTS2 was answered by participants based on the year prior to the batterers' intervention. Due to skewed scores, the CTS2 subscales were log transformed prior to conducting analyses.

## Procedures

Participants provided informed consent prior to completing the questionnaires. Participation was voluntary and involved no compensation. Participants completed the assessment during their batterer intervention group. Information provided by the participants was not shared with the intervention facilitators to protect confidentiality. The men had attended an average of 9.7 (*SD* 6.9) intervention sessions at the time of the assessment. There were no significant correlations between number of intervention sessions attended and any variables in the study; thus, we assume that number of sessions did not impact the study findings.

## Results

Given that we are unaware of any studies that examined the factor structure of the MGRS scale in a sample of violent men, we first conducted a confirmatory factor analysis (CFA)

Table 1

*Masculine Gender Role Stress (MGRS) Inter-Subscale Correlations and Tolerance Values*

Measure	1	2	3	4	5	6	Tolerance values
1. MGRS total score	—	.90*	.82*	.80*	.83*	.81*	
2. MGRS Physical Inadequacy		—	.62*	.62*	.66*	.72*	.33
3. MGRS Emotional Inexpressiveness			—	.72*	.73*	.50*	.38
4. MGRS Subordination to Women				—	.76*	.40*	.35
5. MGRS Intellectual Inferiority					—	.49*	.32
6. MGRS Performance Failure						—	.46

\* $p < .05$ .

using LISREL 8.72 (Jöreskog & Sörbom, 2005) to verify that the five-factor model fit the data provided by this violent sample. Based on Kline's (2005) recommendations, four fit indices were used to determine the extent to which the specified five-factor model fit the data: the Minimum Fit Function (MFF) chi square, which should demonstrate a ratio to degrees of freedom ( $df$ ) of approximately 3 (Kline, 2005); the Bentler-Bonnet Non-Normed Fit Index (NNFI; Bentler & Bonnet, 1980), which should be at least .90; the Comparative Fit Index (CFI; Bentler, 1990), which also should be at least .90; and the Standardized Root Mean Square Residual (SRMR), which should be less than .10 (Kline, 2005).

The overall CFA for the factor weights and latent variable covariances showed a good fit of the model to the data: MFF  $\chi^2(2045.55)$  to  $df$  (730) ratio = 2.80; NNFI = .93; CFI = .93; and SRMR = .075. Similar to what was reported in the article that published the scale (Eisler & Skidmore, 1987), factor loadings ranged from .34 to .74 across the five subscales. To be sure the five-factor model fit better than a model loading all items onto one factor, we conducted a second CFA testing the one-factor model and compared the fit of that model to the fit of the five-factor model. Although the fit of the one-factor model was acceptable, MFF  $\chi^2(2548.48)$  to  $df$  (740) ratio = 3.44; NNFI = .90; CFI = .91; and SRMR = .083, the five-factor model evidenced a significantly better fit to the data,  $\chi^2_{\text{difference}} = 502.92$ ,  $p < .001$ .

Also supporting the five-factor structure, correlations between subscales (see Table 1) ranged from .40 (Subordination to Women and Performance Failure) to .76 (Subordination to Women and Intellectual Inferiority), indicating that at least 50% of the variance in one subscale

was not shared with another subscale. Further, as presented in Table 1, tolerance values demonstrated that between 32% and 46% of the variance in each factor was not shared by the other four factors combined. In sum, consistent with the possibility that the five subscales may differentially predict violence, there appeared to be substantial empirical independence among the subscales.

Results showed that men reported perpetrating an average of 30.00 ( $SD = 30.62$ ) acts of psychological aggression, 8.42 ( $SD = 16.67$ ) acts of physical assault, 2.37 ( $SD = 8.21$ ) acts of sexual coercion, and 2.21 ( $SD = 5.74$ ) injuries inflicted on their partners during the past year.<sup>1</sup> Bivariate associations between MGRS total and subscale scores and measures of IPV are presented in Table 2. As Table 2 reveals, the MGRS total score was associated with each measure of violence except for the Injury subscale. Further, with the exception of the Performance Failure subscale, each MGRS subscale was related to all forms of violence, with the strongest and most consistent correlations between MGRS scores and psychological aggression.

However, these bivariate associations do not control for the shared variance among subscales and types of violence. To control such shared variance, we conducted a multivariate path analysis in which all five subscales were entered simultaneously to predict all four measures of violence. To reduce the influence of measurement error, we estimated each factor as a latent variable by setting the error variance of each construct to be equal to the inverse of the reliability of the measure used to assess that con-

<sup>1</sup> Portions of the data on violence frequency were previously reported in Stuart et al. (2006; 2008).

Table 2

*Bivariate and (Multivariate) Correlations Between Masculine Gender Role Stress (MGRS) and Intimate Partner Violence Scores*

MGRS measure	Psychological aggression	Physical assault	Sexual coercion	Injury
Total score	.26*	.17*	.18*	.16*
Physical inadequacy	.21* (.01)	.17* (.07)	.21* (.15*)	.14* (.02)
Emotional inexpressiveness	.22* (.08)	.14* (.00)	.11* (.05)	.13* (.02)
Subordination to women	.18* (.00)	.16* (.02)	.17* (.05)	.12* (.05)
Intellectual inferiority	.20* (.02)	.17* (.05)	.15* (.01)	.21* (.16*)
Performance failure	.24* (.13*)	.10 (.03)	.10 (.06)	.10 (.01)

\* $p < .05$ .

struct (Kline, 2005). As shown in Table 2, three associations remained significant even after controlling for shared variance among the subscales and dependent variables. Specifically, the MGRS Physical Inadequacy subscale explained a significant portion of variance in sexual coercion scores; the MGRS Performance Failure subscale explained a significant portion of variance in psychological aggression scores; and the MGRS Intellectual Inferiority subscale explained a significant portion of the variance in injury scores. Moreover, after controlling for MGRS subscales associated with each form of violence, the MGRS total score did not account for additional variance in IPV for sexual coercion (controlling Physical Inadequacy),  $t = -.45$ , or for injury (controlling Intellectual Inferiority),  $t = -.34$ . All other subscale effects were nonsignificant, suggesting that many of the associations that emerged in the bivariate analyses emerged due to shared variance with these subscales.

A final set of analyses was conducted to determine whether each specific MGRS factor was associated with each form of IPV more strongly than the other MGRS factors. Specifically, for each form of IPV, the fit of a model that allowed the effects of each factor to vary was compared to the fit of a model in which the effect of each significantly predictive factor was constrained to be equal to each of the other factors. Results showed that the Physical Inadequacy factor predicted sexual coercion more strongly than the Emotional Inexpressiveness factor ( $\chi^2_{\text{difference}} = 5.34$ ,  $p < .05$ ) and marginally more strongly than the Performance Failure factor ( $\chi^2_{\text{difference}} = 3.47$ ,  $p < .10$ ) and that the Intellectual Inferiority factor predicted injury

more strongly than the Subordination to Women factor ( $\chi^2_{\text{difference}} = 4.56$ ,  $p < .05$ ).

## Discussion

The primary aim of this study was to examine the relationships between the MGRS scale and types of IPV in a clinical sample of violent men. Before examining these relationships, it was necessary to demonstrate that the MGRS scale was appropriate to use in a clinically violent sample. Results from CFAs demonstrated that the five-factor model, as originally identified by Eisler and Skidmore (1987), demonstrated an excellent fit, and the five-factor model demonstrated a significantly better fit compared to the one-factor model. Further, intersubscale correlations and tolerance values further indicated that each of the five factors was sufficiently independent. These findings suggest that researchers using the MGRS scale should consider conducting analyses that separately examine the effects of each subscale with the other variables or outcomes of interest.

Indeed, although the vast majority of prior studies have reported results based solely on the MGRS total score, our primary analyses revealed that specific factors of MGRS may be differentially associated with different forms of IPV perpetration. Specifically, although total score effects of MGRS on each form of aggression were replicated here, multivariate analyses of the effects of each factor that controlled for the shared variance among the factors demonstrated that only Performance Failure accounted for unique variance in psychological aggression, only Physical Inadequacy accounted for unique variance in sexual coercion, and only



Intellectual Inferiority accounted for unique variance in injury. Although the total score of MGRS was associated with physical aggression, no one factor emerged as the unique contributor to this association, suggesting that all factors may be equally important in accounting for that association.

The dominance of each factor in predicting each type of aggression makes sense in terms of the items that comprise each subscale. Specifically, the Performance Failure subscale includes items evaluating stress associated with work and sexual performance (e.g., being unemployed, not making enough money, being unable to perform sexually). These domains may be related to psychological aggression as a result of the strain they may place on the intimate relationship. It seems reasonable that difficulties with work and sexual performance may cause tension in the relationship, potentially resulting in increased risk for verbal and psychological aggression.

On the other hand, sexually coercive behaviors may be related to the Physical Inadequacy type of gender role stress, because of the relative importance placed on trying to appear capable of finding a sexual partner and not appearing feminine. The items that comprise this subscale focus heavily on appearing skilled in physical and athletic domains compared to other men, as well as being capable of finding sexual partners and not being perceived as feminine (e.g., being perceived as having feminine traits, being compared unfavorably to men, not being able to find a sexual partner). As Eisler (1995) contends, "being perceived as weak or sexually below par is a major threat to self-esteem for many men" (p. 218). This is also consistent with Locke and Mahalik (2005), who found that conformance to masculinity norms involving being a "playboy," having power over women, and being dominant was a strong predictor of sexual aggression in men. It may be that threats to men's ability to conform to these norms creates gender role stress particular to men's physical and sexual prowess, which increases risk for sexually coercive and abusive behavior to reestablish masculinity.

Finally, given that no single factor emerged to account for the effect of MGRS on physical abuse, we were surprised that the Intellectual Inferiority subscale emerged to uniquely predict injuries. One explanation of this effect, how-

ever, is that situations that threaten men's intellectual abilities may be particularly stressful for those men, leading them to engage in more severe forms of violence that are likely to produce lasting injuries.

The primary research implication of this study relates to the potential knowledge gained by examining the association between each domain of MGRS and the perpetration of partner violence. In other words, some forms of IPV may not be associated with gender role stress in toto, but particular domains of gender role stress may be related to IPV. If analyses from this study had been limited to bivariate correlations using the MGRS total score (without factor analyses or multivariate tests), results would have incorrectly implied that MGRS is a unitary construct associated with each form of IPV. An examination of the specific associations between MGRS total and subscale scores and types of IPV provides a more refined and accurate assessment of the relationship between these constructs. Thus, we contend that future research in this area should involve these types of specific analyses as standard practice.

The primary clinical implication of these findings relates to the potential benefit to clinicians working with men who batter. This study tentatively suggests that, rather than focus valuable and perhaps limited time and resources addressing all domains of masculinity that may create stress and the risk for IPV among violent men, clinicians can focus their intervention efforts regarding masculinity on the particular needs of the client. For instance, results from this study suggest that men who engage in sexually abusive behavior with female partners may benefit from therapy that targets their belief system regarding masculine norms for physical fitness and appearing masculine compared to other men.

Although the present study contributes to the literature by extending the research on gender role stress to a large clinical sample of men in violence intervention programs and by using a theory-guided sequence of analyses examining MGRS and IPV, two notable limitations may qualify the results until they can be replicated. First, we did not obtain corroborating reports of IPV from the female partners, so results are limited by the accuracy of the men's reports. Second, men completed the measure of IPV based on the year prior to starting the batterer

intervention program. Although analyses did not reveal any significant associations between the number of sessions attended and study variables, it would have been ideal to assess men before they began the intervention. Despite these limitations, the results of this study lend support for examining the relationship between gender role stress and IPV in a clinical sample of violent men, as well as the potential empirical and clinical benefits from examining the specific role that each domain of gender role stress may play in predicting partner violence.

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