



**JOURNAL OF MEN'S STUDIES**

1537-6680 (PRINT)  
1933-026X (ONLINE)

**VOLUME 22**  
**ISSUE 2**  
**SPRING 2014**

**MEN'S STUDIES PRESS, LLC**  
**PO BOX 32**  
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Publication details, including instructions for authors and subscription information:  
<http://www.mensstudies.com/content/120392/>

**DOIS AND TABLE OF CONTENTS FOR THIS ISSUE:**  
<http://www.mensstudies.com/content/t84221gw472p>

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## Men at the Crossroads: A Profile Analysis of Hypermasculinity in Emerging Adulthood

*The purpose of this study is twofold: to evaluate the factor structure of the Auburn Differential Masculinity Index (ADMI-60) and to investigate the varied adoption of hypermasculine attitudes within a sample of 328 collegiate males (M = 19.50, SD = 1.53). Factor analytic procedures were used to determine a factor structure that provided the best fit for the data. Four dimensions emerged: dominance & aggression, sexual identity, anti-femininity, and devaluation of emotion. Cluster analytic methods were used to determine a profile structure. These clusters were compared across variables associated with the construct: hostility toward women, self-esteem, and depressive symptoms. Results indicate that a four-cluster solution was robust and well fitting, with each cluster having a unique adoption of the dimensions, Extreme Hypermasculine, Traditional Masculine, Traditional Hypermasculine, Non-Hypermasculine. Results of the study suggest hypermasculinity is not an all-or-none construct, but males can endorse varied levels, which may lead to diverse outcomes.*

*Keywords:* hypermasculinity, emerging adulthood, profile analysis

Over the past twenty-five years, there has been a growing body of literature addressing the exaggeration of traditional masculine ideology, hypermasculinity. Brannon (1976) first posited that traditional masculine ideology consisted of men avoiding feminine pursuits; possessing wealth, fame, and status; having the ability to remain calm in any situation, and exhibiting a disposition toward risk-taking and aggression. Extrapolating Brannon's theory of masculine ideology to a more extreme population of men, researchers have defined hy-

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permasculinity as the inflation of stereotypic masculine attitudes and behaviors involving callous attitudes toward women, and the belief that violence is manly and danger is exciting (Mosher & Sirkin, 1984). Further, a recent investigation into the construct extends the definition to include the inflated valuation of status, self-reliance, aggressive activities, dominance over others, and devaluation of emotion and cooperation (Burk, Burkhart & Sikorski, 2004). Among emerging adult samples, previous research finds hypermasculinity is linked to aggression toward women, aggression toward men who violate gender role norms (Parrot & Zeichner, 2008; Seaton, 2007), increased risk-taking behaviors (e.g., drugs, alcohol, large numbers of sexual partners) (Burk et al., 2004; Mosher, 1991; Mosher & Sirkin, 1984), depression (Magovcevic & Addis, 2008), alexithymia (e.g., lack of affect), poor coping skills (Cassidy & Stevenson, 2005; Martino, 2000), and low academic achievement (Czopp, Lasane, Sweigard, Bradshaw, & Hammer, 1998; Spencer, Fegley, Harpalani, & Seaton, 2004).

There are, however, several issues that exist within the hypermasculinity literature. First, to be deemed hypermasculine, individuals must encompass all of the aforementioned characteristics of hypermasculinity at high levels (Mosher & Sirkin, 1984). Yet, contemporary research on masculinity rejects static masculinity and suggests future research should investigate multiple instead of singular masculinities (Connell & Messerschmidt, 2005). For example, Burk and colleagues (2004) state, “because current inventories of hypermasculinity (e.g. HMI) are used in both the study of physical aggression and sexual aggression, it seems there is a necessity to differentiate between men who are physically aggressive, sexually aggressive, and those who may endorse hypermasculine attitudes but may not commit a crime” (p. 5). More specifically, a more multifaceted analysis of hypermasculinity could aid in identifying men who may be prone to certain outcomes without being prone to another (e.g., sexual violence, physical violence, mental health issues). Several empirical studies highlight the need for this more nuanced understanding of hypermasculinity. Wells and colleagues (2011) report hypermasculinity was linked to perpetration of barroom fights and heavy drinking in a sample of collegiate males. Corprew & Mitchell (in press) report that non-fraternity males who adopted increasing levels of hypermasculinity were more likely to endorse greater levels of hostile attitudes toward women. However, researchers cannot glean from these studies which constellation of hypermasculine attitudes may provoke the variability in outcomes. Thus, there is a need for research that unpacks the variance in adoption of hypermasculine attitudes.

The need to investigate the multidimensionality of hypermasculinity leads to the second issue, the requirement for an accurate measure of hypermasculinity. Previous research suggests flaws in the benchmark measure of the construct, the Hypermasculinity Inventory (HMI) (Mosher & Sirkin, 1984), such as its forced choice format, the use of dated words, as well as cultural inadequacies (Burk et al., 2004; Peters, Nason, & Turner, 2007). Thus, this exploratory study evaluates whether young men differ in their levels of adherence to the varied dimensions of hypermasculinity using a contemporary instrument derived by Burk and colleagues (2004), the *Auburn Differential Masculinity Index* (ADMI). The researchers base their scale on the premise that, along with the characteristics of hypermasculinity, emotional experience, interpersonal dominance, and anti-feminine attitudes should also be considered (p. 5). Burk et al. (2004) suggest hypermasculine ideology places little value on emotion while overemphasizing competition and devaluation of cooperation (p. 5). Further,

hypermasculinity includes a disposition toward self-reliance and status seeking behavior as well as the willingness to use interpersonal violence and dominance in order to achieve such goals.

To test their presumptions, Burk et al. (2004) developed the ADMI-60. During the validation process, a factor analysis revealed five distinct dimensions of hypermasculinity, suggesting the existence of a multidimensional construct. The factors they reported were *hypermasculinity*, *sexual identity*, *dominance & aggression*, *conservative masculinity*, and *devaluation of emotion*. *Hypermasculinity* represents the core definition of hypermasculinity as described by Mosher and Sirkin, as well as the devaluation of feminine traits. *Sexual identity* indicates sex as power and aggression with a devaluation of intimacy. *Dominance & aggression* reflects the use of aggression to enforce dominance and control over others. *Conservative masculinity* expresses exaggerated male attitudes, similar to those in the *hypermasculinity* subscale, but with a level of severity not seen in that dimension. *Devaluation of emotion* reveals a negative outlook on emotional expression, particularly those that may show weakness, fear, or sadness. The establishment of these dimensions garners researchers an opportunity to further explore the adoption of hypermasculine attitudes from a wider lens.

At issue with the ADMI are the psychometric properties of the scale. The authors encourage future researchers to use discretion when employing reported dimensions to assess hypermasculinity because two of the factors, *conservative masculinity* and *dominance & aggression*, may not replicate in future research. Additionally, the authors suggest a core hypermasculine dimension. However, we contend this is conceptually flawed, suggesting the individual items throughout the scale reflect the overarching concept of hypermasculinity. The reevaluation of the factor structure follows the critique by masculinity researchers that many gender related measures are not subject to psychometric evaluation after publication of the initial instrument validation study. Accordingly, scholars have called for the continued evaluation of factor structure and construct validity of the measure (Parent & Moradi, 2011; Smiler & Epstein, 2010). Therefore, in this study we reevaluate the factor structure of the ADMI-60 scale using confirmatory factor analysis.

### THE PRESENT STUDY

Historically, researchers have argued that hypermasculinity is a unitary construct (Mosher & Sirkin, 1984; Mosher & Tomkins, 1988). However, a multidimensional approach implies that males can endorse varying levels of the distinct dimensions of hypermasculinity, thus facilitating a plausible argument for multiple hypermasculinities. Psychometrically sound multidimensional measures of masculinity (see Mahalik et al., 2003; Parent & Moradi, 2011) provide theoretical support for the application of this approach to hypermasculinity. Therefore, the first goal of the present study is to establish a reliable and valid measure of multidimensional hypermasculinity whereby meaningful profiles may be derived.

The purpose of cluster analysis is to identify homogenous subtypes, particularly when there is no a priori knowledge of the groupings (Borgen & Barnett, 1987). Further, person-centered analyses can illustrate how nuanced dimensions of hypermasculinity co-vary with one another at the level of the individual (Marsh, Lüdtke, Trautwein, & Morin, 2009). Thus, the second goal of the current study investigates how collegiate males differ across the dimensions of hypermasculinity. As this is an exploratory study, we will also assess how the

clusters differentiate across variables associated with hypermasculinity, such as hostility toward women, self-esteem, and depression. These analyses help to provide meaning to the clusters and external validation of the scale. Finally, we investigate how race and fraternity status relates to the profiles.

## METHOD

### Participants

The sample consisted of 328 males from three collegiate populations in a major southern United States city who took part in a larger study on masculine attitudes ( $N = 343$ ). Because of the correlates between hypermasculinity and the study's outcome variables (e.g. hostility toward women), males who self-reported they were homosexual were excluded from the analyses ( $n = 15$ ). This approach is consistent with that of Gallagher and Parrott, who exclusively analyzed heterosexual men because they are the most common perpetrators of physical and sexual aggression against women, which are behavioral manifestations of hostility (2011). Self-reporting homosexual men were not disqualified from the larger study as all men regardless of sexual orientation may adopt hypermasculine attitudes.

Multiple data collection sites were used to increase the generalizability of the sample (e.g. racial categories, SES). One hundred eighty two participants attended a predominantly White private university with an enrollment of approximately 11,000 students, where the male undergraduate population at the time of collection was roughly 50%. The second university was also a predominantly White private university with an enrollment of approximately 6,500 students with almost 30% of students being male. This school provided one hundred eleven participants. The third school was a historically Black university with approximately 3,200 students enrolled, of which one third were male. We enrolled thirty-five males from this site. Participant ages ranged from eighteen to twenty-five ( $M = 19.50$ ,  $SD = 1.54$ ), with 77% between the ages of eighteen and twenty. The sample consisted of 214 White males (65.2%), sixty-two African American males (18.9%), nineteen Asian males (5.8%), sixteen Hispanic males (4.9%), and seventeen participants who indicated other (5.2%). Nearly one third of the sample ( $n = 99$ ) indicated they were in a fraternity.

### Procedure

Participants were recruited through the psychology subject pool at each university, as well as university student centers and gym facilities with flyers, "Men at the Crossroads," advertising a study about men's social attitudes. The snowball method (Salganik & Heckathorn, 2004) was also utilized to recruit additional participants by having study participants to refer others to participate. Those recruited through their psychology classes received extra credit for participation in the study at each of their respective universities ( $n = 273$ ). Students recruited outside of these classes did not receive a supplement for participation ( $n = 45$ ). Participants signed an informed consent form, which facilitated an understanding of what the study entailed, the participant's role in the study, and how they could discontinue participation without penalty. A male researcher administered the survey in classrooms at each university in group format. Completion of the survey took approximately one hour. After completion of the surveys, participants were debriefed. The protocol com-

prised of 10 measures, and was adjusted to ensure scales assessing the same construct did not influence participants' answers.

## Measures

**Hypermasculine attitudes.** The *Auburn Differential Masculinity Inventory* (Burk et al., 2004) is a self-report inventory that assesses a person's level of hypermasculinity. Participants rate each of the 60 questions on a 5-point Likert scale ranging from strongly disagrees to strongly agree. The scale provides a total score, plus scores on five subscales reflecting hypermasculinity, sexual identity, dominance and aggression, conservative masculinity and devaluation of emotion. Examples of questions used in the study are, "Women, generally, are not as smart as men" (*Hypermasculinity*), "My attitude regarding casual sex is 'the more the better'" (*Sexual Identity*) and "I like to be boss" (*Dominance and Aggression*). In Burk and colleagues' initial research, the overall scale was reliable and valid ( $\alpha = .83$ ), with subscale reliabilities ranging from .76 to .87. The overall scale reported good reliability ( $\alpha = .93$ ). However, we contend the prescribed subscales may not accurately reflect the conceptualization of the construct, thus we conducted a confirmatory factor analysis to investigate the dimensions of the scale.

**Gendered hostility.** The *Hostility toward Women Scale* (Check, 1984) is a 30-item self-report instrument on a 5-point Likert scale designed to measure participants' hostile attitudes toward women. Participants are able to choose from "always true" to "always false" for each item. A total score is obtained by summing up the number of items chosen in a hostile direction. Greater scores indicate more hostility. Examples of questions used in the scale are: "I feel that woman flirt with men to tease them or hurt them" and "I feel upset by even the slightest criticism of a woman." Check (1984) reported an internal consistency coefficient of .80 and a test-retest reliability of .83. A Cronbach's alpha coefficient of .75 was obtained for the present sample. The measure has been shown to be consistently reliable and valid with similar samples (see Gallagher & Parrott, 2011).

**Depressive symptoms.** The *Beck Depression Inventory* (Beck, Steer, & Brown, 1996) is a multiple-choice self-report inventory, which is a revision from the original 1996 BDI. The inventory constitutes 21 questions designed to measure current depressive symptoms such as hopelessness, irritability, feelings of guilt or punishment, fatigue, and lack of interest in sex. Examples include a four choice item of "I do not feel sad," "I feel sad much of the time," "I am sad all of the time," and "I am so sad or unhappy that I can't stand it," or a four choice item of "I am no more irritable than usual," "I am more irritable than usual," "I am much more irritable than usual," and "I am irritable all the time." The BDI scale reports high reliability ( $\alpha = .91$ ) and the scale reported a high reliability for the current study ( $\alpha = .95$ ).

**Self-esteem.** The *Rosenberg Self Esteem Scale* (Rosenberg, 1965) is a 10-item self-report scale measuring an individual's self-esteem, using a 4-point Likert scale ranging from strongly disagree to strongly agree. Examples of questions used in the scale are "On the whole I am satisfied with myself." Previous research indicates good reliability ( $\alpha = .88$ ). The current study reported a similar reliability ( $\alpha = .84$ ).

## RESULTS

### Analytic Strategy

To corroborate the work of Burk and colleagues (2004), initially, we ran principal components analysis (PCA) using direct oblimin extraction, as we believe the factors of the ADMI scale are conceptually intended to be correlated. Subsequently, we ran confirmatory factor analysis (CFA) using the results from the PCA in conjunction with guidance from the Burk et al., 2004 study to make decisions on item retention. Last, we ran bivariate correlations and descriptive statistics on the factors derived from the CFA as well as the other study variables such as hostility toward women, self-esteem, depression, fraternity status, and race.

The factors derived from the CFA were standardized before being utilized in the subsequent cluster analyses. Next, both hierarchical and k-means cluster analyses were run, first separately then in conjunction with one another. Similar grouping classifications across the different algorithms of these cluster methods provide validation to the robustness of the clusters derived from the data (Mandara, 2003). A hierarchical analysis with Ward's method of clustering and a squared Euclidean distance measure was applied. This linkage method creates distinct clusters with minimized error variance. The criteria used to determine the appropriate number of clusters were the hierarchical dendrogram, the distinctiveness of the clusters, and the theoretical interpretability of the cluster solution (Aldenderfer & Blashfield, 1984).

Next, the centroids derived from the hierarchical analysis were used as start values for the iterative k-means analysis, which takes advantage of the strengths of both methods and minimizes the limitations of the iterative k-means analysis (Henry, Tolan, & Gorman-Smith, 2005; Mandara, 2003; Taylor et al., 2001). The advantage of the k-means algorithm is that it reconfigures the cases after each iteration based on the new centroids; thus, it is more likely to catch cases that may have been previously mis-specified, namely into the wrong cluster. However, the disadvantage of k-means is that the solution is less reliable if the cluster centers are not initially well defined. Thus, deriving strong start values from the hierarchical algorithm provides strength to the k-means analysis.

Standardized mean scores described the clusters. To check for internal consistency, a cross-validation procedure was conducted (Breckenridge, 2000; Mandara, 2003) and is described in the results. Beyond internal validity, the relation of the profiles to the study outcomes along with their alignment to previous empirical and theoretical work suggests external and criterion-related validity. Multivariate analyses were employed using the clusters to predict hostility toward women, self-esteem, and depression. Finally, the profiles were examined to see if they differed by race and fraternity status.

### Preliminary Statistics and Cluster Validation

The results from the confirmatory factor analysis revealed four factors as most robust and well fitting, with the dimensions indicating moderate to high reliability. The four factors were: *Dominance & Aggression* ( $\alpha = .77$ ), *Sexual Identity* ( $\alpha = .76$ ), *Anti-feminine Attitudes* ( $\alpha = .87$ ), and *Devaluation of Emotion* ( $\alpha = .82$ ) (see Table 1). In the confirmatory

Table 1  
*Factor Analysis of Auburn Differential Masculinity Index-60 Items*

	I	II	III	IV
<b>Factor I: Dominance &amp; Aggression</b>				
Item 1: If another man made a pass at my girlfriend/wife, I would tell him off.	.371			
Item 2: I believe sometimes you've got to fight or people will walk all over you.	.545			
Item 52: I like to be the boss.	.457			
Item 55: If another man made a pass at my girlfriend/wife I would want to beat him up.	.510			
Item 44: I don't mind using physical violence to defend what I have.	.722			
Item 46: I would initiate a fight if someone threatened me.	.660			
<b>Factor II: Sexual Identity</b>				
Item 15: My attitude regarding casual sex is "the more the better."		.704		
Item 18: I like to tell stories of my sexual experiences to my male friends.		.546		
Item 41: I like to brag about my sexual conquests to my friends.		.695		
Item 19: I think it's okay for men to be a little rough during sex.		.488		
Item 17: There are two kinds of women; the kind I date and the kind I marry.		.440		
<b>Factor III: Anti-Feminine Attitudes</b>				
Item 18: I think men should be generally aggressive in their behavior.			.672	
Item 19: I know feminists want to be like men because men are better than women.			.751	
Item 20: Women need men to help them make up their minds.			.614	
Item 21: I consider men superior to women in intellect.			.641	
Item 22: I value power over people.			.561	
Item 23: I think women who say they are feminists are just trying to be like men.			.704	
Item 24: Women, generally, are not as smart as men.			.691	
Item 11: I think women who are too independent need to be knocked down a peg or two.			.743	
<b>Factor IV: Devaluation of Emotion</b>				
Item 25: I think men who show their emotions frequently are sissies				.805
Item 26: I think men who show they are afraid are weak.				.802
Item 27: I think men who cry are weak.				.834
Item 28: Even if I was afraid, I would never admit it.				.508



factor analysis, the factors modeled in concert and achieved adequate fit; comparative fit index (CFI) = .90, root mean square approximation (RMSEA) = .069 (90% CI: .062-.076). As mentioned previously, Burk and colleagues (2004) found five factors from the scale although they note two of their dimensions overlap considerably, *conservative masculinity* and *dominance aggression*, and suggest some reticence about their duplication. Our findings suggest their caution concerning dimension replication was substantiated. Furthermore, the findings retain three of the five reported dimensions. However, we argue the existence of an anti-feminine dimension not reported by Burk et al. (2004). This factor replaces the hypermasculine and conservative masculinity dimensions because a majority of the items retained through CFA investigate men's beliefs of gender equity. Examples of these questions are "I know feminists want to be like men because men are better than women," and "I think women who are too independent need to be knocked down a peg or two."

The first two dimensions highlight behavioral attitudes. Based on the items retained from CFA, the *dominance and aggression* dimension highlights attitudes regarding power, control, and the use of physical violence to assert the aforementioned characteristics (see Table 1). The *sexual identity* dimension reflects males' callous sex attitudes with items within the dimension questioning how males brag about their sexual exploits, the type of sex they prefer, and their views on different types of women. The other dimensions reflect more ideological attitudes. The *anti-feminine attitudes* dimension highlights males' stark and rigid beliefs concerning gender equity, or more aptly, gender inequity. The last dimension, *devaluation of emotion*, reveals a feigning of any behavior that elucidates weakness such as crying or admitting fear.

The four dimensions of hypermasculinity showed moderate-to-strong correlations among one another ( $r = .35$ -.61) and small-to-moderate correlations across the study outcomes, as well as fraternity status and race (see Table 2). Most notably, there was a significant positive correlation with hostility toward women across all four dimensions of hypermasculinity. Non-fraternity participation was negatively correlated with the *dominance & aggression* and *sexual identity* dimensions of hypermasculinity. There were no significant associations between the dimensions and self-esteem.

The initial hierarchical cluster analysis revealed a four-cluster solution as theoretically interpretable. To corroborate the clusters identified in the hierarchical cluster analysis, an it-

Table 2  
*Unstandardized Descriptive Statistics and Correlation Matrix*

Variable	<i>N</i>	<i>M</i> ( <i>SD</i> )	1	2	3	4	5	6	7
1. Dominance & Aggression	328	3.12(0.82)	-	.43**	.35**	.35**	.27**	-.01	.12*
2. Sexual Identity	328	2.73(0.94)		-	.48**	.38**	.33**	.01	.20
3. Anti-Feminine Attitudes	328	2.03(0.84)			-	.61**	.40**	.08	.14*
4. Devaluation of Emotion	328	2.42(0.97)				-	.24**	.48	.17**
5. Hostility Toward Women	328	2.67(0.38)					-	-.16**	.17**
6. Self Esteem	328	3.28(0.48)						-	-.33**
7. Depressive Symptoms (BDI)	328	1.07(0.62)							-

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

erative non-hierarchical cluster analysis (k-means) was performed next, specifying a four-cluster solution. A comparison of cases across the two cluster methods indicated that 76.8% of the cases were similarly classified, suggesting the plausibility of a robust four-cluster solution within these data.

The final cluster solution was derived by using the cluster centroids from the hierarchical analysis as start values for the k-means cluster analysis, specifying four clusters. The four clusters were labeled by examining and describing the cluster means across the hypermasculinity dimensions. The names of the four clusters are as follows: *Extreme Hypermasculine* ( $n = 28$ ), *Traditional Masculine* ( $n = 122$ ), *Traditional Hypermasculine* ( $n = 96$ ), and *Non-Hypermasculine* ( $n = 82$ ). Unstandardized means and variation by cluster are presented in Table 3. Cross-validation procedures were then conducted to test internal validity (Breckenridge, 2000). First, the data were randomly split into sample A and B. Next, a cluster analysis (hierarchical and k-means) was performed on both samples independently. Third, sample B was classified into clusters according to the centroids derived from sample A, leaving two different sample B solutions. Finally, the agreement between the two sample B solutions was computed using Cohen's Kappa ( $K = 0.94$ ), showing very strong internal consistency. This cross-validation method is a well-endorsed and effective indicator of internal validity (Breckenridge, 2000), suggesting the robustness of the clusters derived from these data.

The representation of each cluster by race and fraternity status was assessed through chi-square analysis using *Cramer's V* coefficient for measuring strength of association (Cohen, 1988). Regarding the different racial-ethnic groups represented in the sample, there were no differences by race beyond what would be expected by chance across the profiles  $\chi^2 (15, N = 328) = 17.34, p = .29$ . However, there were significant differences in representation across the profiles regarding fraternity status  $\chi^2 (3, N = 328) = 21.28, p < .001$ ; although the effect size was moderately small (*Cramer's V* = .25,  $p < .001$ ). A closer inspection of the frequencies by fraternity status shows that the representation of young men in fraternities versus not in fraternities across the profiles was as expected based upon their representation within the entire sample except for two profiles. The *Traditional Hypermasculine* cluster was overrepresented among fraternity members by approximately 55% more than what

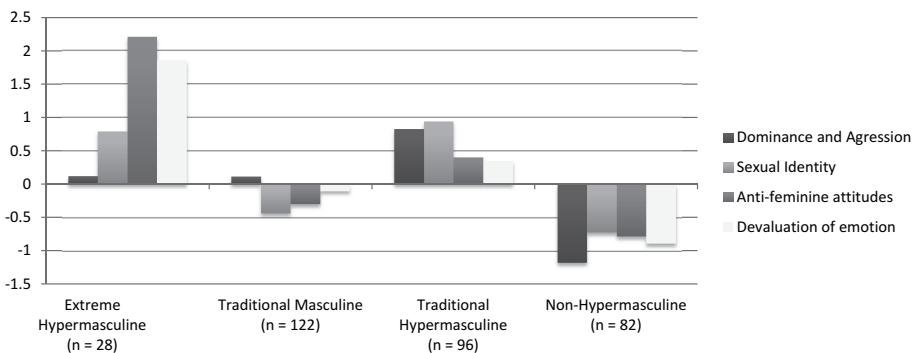


Figure 1. Four-cluster solution based on the confirmed dimensions of the Auburn Differential Masculinity Index. Note: Scores for clusters are standardized.

Table 3

*Unstandardized Means and Standard Deviations for Profiles Across the Dimensions of Hypermasculinity*

	(4) Non- Hypermasculine <i>M (SD)</i>	(3) Traditional Hypermasculine <i>M (SD)</i>	(2) Traditional Masculine <i>M (SD)</i>	(1) Extreme Hypermasculine <i>M (SD)</i>
1. Dominance & Aggression	2.16 (.47)	3.79 (.54)	3.21 (.51)	3.22 (.88)
2. Sexual Identity	2.05 (.69)	3.61 (.67)	2.32 (.60)	3.47 (.75)
3. Anti-feminine Attitudes	1.38 (.40)	2.37 (.56)	1.78 (.49)	3.88 (.59)
4. Devaluation of Emotion	1.56 (.49)	2.75 (.74)	2.31 (.72)	4.20 (.64)

would be expected by chance. Also, the *Non-hypermasculine* cluster was overrepresented among non-fraternity members by approximately 21% more than what would be expected by chance.

### Profile Descriptions and Predictions

The configuration of means across the dimensions guided the labeling of the four profiles (See Figure 1). The *Extreme Hypermasculine* profile was labeled as such because the relatively small amount of young men in this cluster elucidated attitudes that were above the mean of the sample across all four dimensions of hypermasculinity. However, there was a distinct separation for these young men regarding their ideological and behavioral attitudes of hypermasculinity. Ideological beliefs, such as *anti-feminine attitudes* and *devaluation of emotion*, were both approximately two standard deviations above the mean, indicating these men are stark fundamentalists on these beliefs. However, the behavioral aspects of hypermasculinity, such as the endorsement of physical aggression and coarse sexual behaviors with women were lower, in comparison, although still above the mean. Members of this cluster had a mean age of 19.63 ( $SD = 1.58$ ) and 28% of the cluster indicated they were active in a fraternity. This cluster reported the highest level of depressive symptoms across the clusters ( $M = 1.31$ ,  $SD = .57$ ) along with reporting moderate levels of hostility toward women ( $M = 2.83$ ,  $SD = .35$ ).

The group labeled *Traditional Masculine* had the largest representation of men and had hypermasculine characteristics that approached the sample mean, with the possible exception of the *sexual identity* dimension, which approached one-half standard deviation below the mean. This group received their label because of their moderate endorsement of dominance and aggression. The literature suggests one of the primary foundations of masculinity is the perception by oneself and others that one is in control and has the ability to protect, compete, and win in social settings (David & Brannon, 1976; Levant et al., 1992). Cluster members had a mean age of 19.45 ( $SD = 1.51$ ) with 27% of the cluster reporting they were in a fraternity. Members of the clusters also reported lower scores on both hostility toward women and depressive symptoms than the *Extreme Hypermasculine* and *Traditional Hypermasculine* Clusters ( $M = 2.64$ ,  $SD = .35$ ).

The *Traditional Hypermasculine* profile derived its name from its constellation of dimensions that hover around one-half standard deviation above the mean. The *dominance &*

*aggression* and *sexual identity* dimensions were higher, nearly approaching one standard deviation above the mean; while the *anti-feminine* and *devaluation of emotion* dimensions were lower, approaching one-half deviation above the mean. The cluster had an average age of 19.63 ( $SD = 1.54$ ) and 47% of the members indicated they were in a fraternity. Members of this cluster reported the highest levels of hostility toward women ( $M = 2.84$ ,  $SD = .30$ ).

Finally, the *Non-Hypermasculine* cluster derived its label from its relative low scores across the dimensions. Each dimension was nearly one standard deviation below the mean, with *dominance & aggression* at its lowest compared to the other dimensions as well as the other profiles (see Figure 1). The cluster membership had a mean age of 19.35 ( $SD = 1.58$ ). This cluster also reported the lowest levels of both depressive symptoms ( $M = .91$ ,  $SD = .63$ ) and hostility toward women ( $M = 2.45$ ,  $SD = .38$ ). The results of the profiles address our second research goal, suggesting a diverse range of hypermasculine adoption among collegiate males.

A multivariate analysis of variance (MANOVA) was conducted, using the clusters as the between subjects factor, on hostility toward women, self-esteem, and depression outcome variables. Results from the MANOVA yielded a significant multivariate effect of the clusters on the dependent variables as a whole (Wilk's Lambda = .793,  $F(9, 783) = 8.70$ ,  $p < .001$ ). Univariate tests were significant across both the hostility toward women and depression outcomes. Pairwise comparisons, using Tukey's HSD showed how the profiles compared to one another on hostility toward women, self-esteem and depression (see Table 4).

## DISCUSSION

The present study's goals were twofold. Our first objective was to evaluate the psychometric properties of the Auburn Differential Masculinity Index (ADMI). The second goal was to determine how collegiate males cluster together regarding the confirmed dimensions

Table 4  
*Outcome Comparisons across the Four Clusters*

	(4) Non- Hypermasculine ( $n = 82$ ) $M(SD)$	(3) Traditional Hypermasculine ( $n = 96$ ) $M(SD)$	(2) Traditional Masculine ( $n = 122$ ) $M(SD)$	(1) Extreme Hypermasculine ( $n = 28$ ) $M(SD)$	$F_{(3,324)}$	Tukey Comparisons
1. Hostility toward women	2.45 (.38)	2.85 (.30)	2.64 (.35)	2.83 (.36)	21.35***	1 > 2 & 4 2 > 4 3 > 2 & 4
2. Self-esteem	3.27 (.48)	3.29 (.51)	3.26 (.48)	3.40 (.46)	.61	n/a
3. Depression (BDI)	.91 (.64)	1.13 (.65)	1.09 (.57)	1.31 (.57)	3.75*	1 > 4

Note: \*\*  $p < .01$ . \*\*\*  $p < .001$ . All posthoc tests reported in this table are significant at  $p < .05$ .

of the ADMI and to investigate how these clusters differentiated across variables associated with hypermasculinity.

Regarding our first goal, our results suggest a four-factor solution as the best fit for the current sample: *dominance & aggression*, *sexual identity*, *anti-feminine attitudes*, and *devaluation of emotion*. The present dimensions are similar to those in the original Burk et al. (2004) study with a few important distinctions. First, we did not find evidence of a conservative masculinity dimension. We believe the dominance and aggression dimension for these data subsumed this dimension. Burk et al. (2004) suggest this possibility as well. Next, Burk et al. (2004) noted a hypermasculinity dimension, which we believe to be erroneous, as all of the dimensions of this scale comprise the concept of hypermasculinity. However, we do report an anti-feminine dimension, which reflects males' rigid beliefs concerning gender equity.

Regarding the second goal, we find support for the multi-dimensionality of hypermasculinity through four distinct and theoretically meaningful profiles: *Extreme Hypermasculine*, *Traditional Masculine*, *Traditional Hypermasculine*, and *Non-Hypermasculine*. Additionally, the data reveals statistically significant differences regarding depressive symptoms and the adoption of hostile attitudes toward women across the clusters.

We cannot predict in detail the etiology or motivations of the men in the clusters, or generalize these clusters to other contexts, as this is an exploratory study; however, we will attempt to align the clusters with previous research in order to offer some conjecture. The *Extreme Hypermasculine* cluster was moderate on the *dominance & aggression* and *sexual identity* dimensions and had the highest levels *anti-feminine attitudes and devaluation of emotion* within the sample. Pleck and colleagues' (1994), seminal work may help to explain this cluster. Using a social development framework, they suggest hypermasculine attitudes and behaviors result from socialization processes targeting a "traditional" masculine ideology. Cultural socialization processes as well as influential individuals may condition males in this cluster to view aggression and violence as a natural part of being a man while fostering misogynistic attitudes. The latter attitudes, which are more prevalent within this cluster, suggest women are ornamental, unequal, and should be used for the purpose of subjugation.

The third cluster, *Traditional Hypermasculine*, endorsed the highest levels of *dominance and aggression* and *sexual identity* while adopting moderate levels of *devaluation of emotion* and low levels of the *anti-feminine* dimension. We suppose men in this cluster are more inclined to seek meaningless and unemotional sexual encounters with their female peers. They may assume dominant or aggressive postures or behaviors particularly in competitive contexts because exhibiting these behaviors may increase their chances of the aforementioned encounters while also gleaning perceived power and status (Harris, 2010). The latter are both cornerstones of hypermasculinity (Burk et al., 2004). This may be particularly relevant in all-male hegemonic contexts, such as fraternities and collegiate sports teams where privilege and social status are critical (Bleeker & Murnen, 2007; Koss & Gaines, 1993). In fact, our data report an overrepresentation of fraternity males within the cluster. Harris' (2010) qualitative study on collegiate male's meaning of masculinity affirms this assertion. He reported men in his sample noted that student-athletes and fraternity members shaped the priorities of males on campus (e.g., hooking up), and there was constant pressure for men to compete with other men for status, attention, and popularity. Future research

is needed to assess the motivations of the men in this group. Doing so can provide greater understanding of how certain contexts influence how men are differentially socialized (Steinfeldt & Steinfeldt, 2012).

The *Extreme and Traditional Hypermasculine* clusters foster concern. The moderate to high endorsement on the dimensions may lead to negative outcomes, such as sexual and physical aggression against women and violence toward men (Parrott & Zeichner, 2008; Reidy, Shirk, Sloan, & Zeichner, 2009). Concerning aggression against women, our results offer support to this trepidation, both profiles held similarly moderate hostile attitudes toward women. Research posits these attitudes are a precursor to sexual aggression (Corprew & Mitchell, in press; Gallagher & Parrott, 2011; Parrott & Zeichner, 2008). Yet, we posit the *Extreme Hypermasculine* cluster may be more likely to hold more sexually aggressive attitudes because of their high endorsement of the *anti-feminine* dimension. Further research is needed to tease apart the complex nuances between the groups.

The two profiles reveal a stark need for collegiate personnel to identify and provide the necessary services, programming, and organizational support to aid males in the navigation of their masculine identity. Moreover, there is a need for on-campus organizations that seek to challenge notions of hypermasculinity, and promote the existence and adoption of more positive masculinities. This aspect is particularly relevant and applicable in the collegiate context because of the increased exposure and scrutiny of universities to address the issue of sexual aggression head on (Fleishman, 2010). Identifying possible causes of sexual assault rather than creating and addressing reactionary measures better facilitates the reduction of these incidences (Corprew & Mitchell, in press).

Whereas the *Extreme Hypermasculine* and *Traditional Hypermasculine* clusters represent moderate to high endorsement across the dimensions, the *Traditional Masculine* cluster endorsed moderate levels of *dominance & aggression* and low levels of the remaining clusters. Moreover, they held greater hostile attitudes toward women than the *Non-Hypermasculine* cluster, but not the *Extreme Hypermasculinity* and *Traditional Hypermasculinity*. Low endorsement on three of the four factors suggests we forgo a hypermasculinity label for the cluster. Because the construct is conceptualized as men's exaggeration of traditional masculine norms, we contend that members' placement below the standardized means on three of the four dimensions renders these men outside the scope of hypermasculinity. Without corroboration of a traditional masculinity scale, it would be premature to determine where these men fall on that spectrum. However, moderate endorsement on the *dominance and aggression* and low adoption of the other dimensions may indicate an adherence to the notions of traditional masculinity. For example, David and Brannon (1976) define traditional masculinity as distancing oneself from femininity, achieving success, avoiding vulnerability, and acting aggressively to become dominant. More recently, Levant et al. (1992) posited that traditional masculinity encompasses various configurations of restricting emotions, avoiding femininity, being tough and aggressive, self-reliant, goal-oriented, non-relational, and homophobic. The latter definition appears more appropriate to our labeling of the cluster as *Traditional Masculinity* because of its reference to the various configurations of masculinity.

Although our data report the majority of the sample adopts at least moderate levels of hypermasculine attitudes on one or more of the dimensions, the *Non-Hypermasculine* cluster endorsed the lowest levels of hypermasculine attitudes. Additionally, the cluster reported the

lowest levels of hostility toward women and depressive symptoms. The authors posit that even when faced with perceived threat and hypermasculine socialization techniques (e.g., peers, media) males can adopt attitudes that are less violent, less anti-feminine, and more emotive. Several factors may influence this group's adoption of a more "positive masculinity," such as having a long term heterosexual relationship (Burk et al., 2004), a strong supportive family (Kiselica & Englar-Carlson, 2010), or being an active member of collegiate activities that support the development of more positive masculinities (Harris, 2010). Our results align with those of Fisher and Good (1998) and Steinfeldt and Steinfeldt (2012) who studied males' conforming to masculine norms. They also reported a non-conforming cluster, arguing a monolithic adoption of masculinity, or for that matter hypermasculinity, does not exist.

More research is needed on the development of positive or "healthy masculinities." In fact, Kiselica and colleagues (2008) note most of the literature focuses on constrictive or hostile masculinities. However, research should move forward to investigate the building blocks for wellness and honorable masculinity. This research can facilitate the creation of programming and policy centered on males' positive gender development.

There is one last observation worth noting. Most of the men in the sample endorsed at least moderate levels of *dominance & aggression*. This finding suggests the outward perception of being tough and in control was paramount to males in this context regardless of their degree of wholesale adoption of masculine norms. These results are similar to those of Fisher and Good (1998) who conducted a cluster analysis with a sample of collegiate males using the Male Norms Role Scale. They reported most of the men in their sample were at least moderately high in the Tough Image dimension. The question is why do males in this arguably safe context feel the need to project this image? Majors and Billson (1993) may offer the most appropriate hypothesis. They argue males may assume a "cool pose" to offset their feelings of vulnerability within a given context. They suggest the actions coinciding with "cool pose" are a means of exuding a sense of pride, strength, and control (p. 5). Being dominant and aggressive may allow individuals to blend in by masking their sheepish vulnerability with wolves' clothing, affording them an opportunity to thwart a perceived threat. Further, it allows those who do not experience these insecurities to flourish in their surroundings. Future research is needed to examine more in-depth the function this aspect serves males in their various contexts.

#### **LIMITATIONS AND FUTURE DIRECTIONS**

There are several limitations to the study. First, the sample is cross-sectional and it lacks the diversity needed to generalize the cluster solutions across various contexts; the sample is majority White, thus future research is needed to determine the cluster structures across various races, socioeconomic strata, and levels of education. Because the majority of the participants are between eighteen and twenty years old, future research should employ a wider range of ages as well as longitudinal methods to determine the fluidity in attitudes and cluster membership over time. Additionally, the study is based on self-report data. Because of the nature of the questions posed there may be a social desirability issue. Although informed of anonymity, participants may indicate what they perceive as collegiate masculinity. Future research should undertake a mixed-methods approach to flesh out the motivations of each cluster.



The identification of different profiles of hypermasculinity has several important connotations. First, it suggests that hypermasculinity is not an all-or-none aspect of an individual's gender identity. That is, most men do not necessarily endorse or reject all aspects of hypermasculinity. Second, an array of models in the adoption of hypermasculine attitudes suggests diversity in behavioral pattern associated with the construct. For instance, men who score low on the *Sexual Identity* dimension but high on the *Dominance & Aggression* dimension may be prone to fighting, but less likely to engage in risky or consequential sexual behaviors. These behaviors may be indicative of how an individual perceives themselves within a given context (e.g., hostile environment, all-male hegemonic context) or as a means of coping with mental health issues (e.g., depression). Simply, the clusters and correlations derived from this study serve as a foundation for the continued study and understanding of varied hypermasculinity with males at a pivotal developmental crossroad, emerging adulthood. Yet, they also serve as a springboard for further investigation of hypermasculinity across the lifespan. It is important to note the initial adoption and on-going function of these attitudes and how and why they may change over time. Understanding these aspects can lead to greater evaluation and understanding of the nuances in masculine identity and the promotion of a more adaptive and healthy masculinity.

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