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## The influence of gender role adherence on alcohol use and problems

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## Introduction

- College students abuse alcohol at higher rates than their non-college cohort (Johnston et al., 2002).
- Alcohol abuse is associated with increased risk for fatalities, assaults, serious injuries, and arrests (Turrisi et al., 2006).
- Approximately 75% of college men and 55% of college women drink heavily, and 20-25% of heavy drinking students experience a wide range of drinking-related problems at some point during their college years (Yu, Evans, & Perfetti, 2003).
- Heavy episodic drinking by college women is correlated with an increased risk for sexual assault (Abbey et al., 2001; Ullman et al., 1999), a variety of psychological problems including depression (Beckman & Ackerman, 2006), and an impaired assessment of associated risks (Spigner, Hawkins & Loren, 1993).
- Compared to female counterparts, college men report consuming higher quantities of alcohol per episode and experiencing more negative consequences including hangovers, property damage, disputes between friends, and engaging in unplanned sexual activity (Perkins, 2002).
- The association between gender and alcohol use has been well documented in previous research. However, the mechanisms underlying this association have not been studied systematically.

## Research Question

Which aspects of conformity to masculine and feminine gender norms are associated with problematic drinking behaviors and negative consequences in mandated college students?

## Method

### Participants

Participants consisted of 322 students at a large Midwestern public university who were sanctioned to participate in an alcohol intervention program for violations of college alcohol policy or legal infractions.

The majority of the participants was male, Caucasian, under 21 years of age, non-Greek affiliated/ independent, and lived in the residence halls. Please refer to table 1 for participant demographic information.

### Materials

Alcohol problems were measured using the Rutgers Alcohol Problem Index (RAPI). Alcohol quantity and frequency of use were taken from the first 2 questions on the Alcohol Use Disorders Identification Test (AUDIT). For this study,  $\alpha$  levels for the RAPI and the AUDIT were .87 and .71 respectively.

The Conformity to Masculine Norms Inventory (CMNI) was used to assess adherence to masculine ideology. For this study,  $\alpha$  levels for the 11 CMNI subscales ranged from .60 to .91. The Conformity to Feminine Norms Inventory (CFNI) was used to assess adherence to feminine ideology. For this study,  $\alpha$  levels for the 8 feminine norms subscales ranged from .77 to .95.

### Procedure

Participants completed the alcohol survey information as a component of their alcohol intervention requirement during the first meeting. There was no penalty for declining to participate or for withdrawing from the gender survey portion. Participants received a \$10 gift certificate in exchange for completion of the gender-related survey.

Participants who completed the study were not significantly different from non-completers in gender, age, race, year in school, Greek status, housing, alcohol use frequency or quantity, or alcohol problems.

### Data Analysis

Bivariate two-tailed Pearson correlations were calculated to determine the relation between participants' alcohol-related behaviors and problems to the CMNI and CFNI subscale and total scores. Correlation results are reported in Table 2 with significance indicated at  $p < .05$  or  $p < .01$ .

Path analyses were used to test the unique association of each gender inventory full scale and subscales with alcohol problems, drinking frequency, and drinking quantity using Mplus.

Table 1

Demographic Information of BASICS Participants (N=322)

Gender	
Women	32.90%
Men	67.10%
Greek Status	
Greek	28.90%
Independent	69.30%
Not identified	1.90%
Race	
African American	2.20%
Asian American	2.20%
Hispanic/Latino	1.60%
Caucasian	91.30%
Other	2.50%
Not identified	0.60%
Age	
Under 21	75.40%
Over 21	15.60%
Year in School	
Freshman	64.90%
Sophomore	14.90%
Junior	9.00%
Senior	8.10%
Grad	2.50%
Other	0.60%
Housing Arrangement	
Residence Halls	64.30%
Fraternity/Sorority	10.60%
Apartment/House	22.00%
At Home/ Family	.95%
Not identified	.95%
Referral Source	
Student Life	26.10%
Residential Life	61.20%
Other	12.80%

## Results

### Relations to Alcohol Use and Problems

#### Conformity to Feminine Norms Inventory

- Nice in Relationships, Sexual Fidelity, and Domestic subscales were all significantly negatively related to at least one drinking variable, suggesting that adherence to these femininity norms is a protective factor against alcohol use and alcohol-related problems.
- In contrast, the Thinness and Invest in Appearance subscales were significantly positively associated with at least one drinking variable, suggesting that adherence to these femininity norms is a risk factor for increased alcohol use and alcohol-related problems.

#### Conformity to Masculine Norms Inventory

- Emotional Control, Risk-Taking, Violence, Power Over Women, Playboy, and Disdain for Homosexuality subscales were all significantly positively related to at least one drinking variable, suggesting that adherence to these masculinity norms is a risk factor for increased alcohol use and alcohol-related problems.
- The remaining subscales were not significantly related to any drinking variables and were excluded from further study analyses.

### Path Analyses

#### Conformity to Feminine Norms Inventory

All CFNI subscales that were correlated with drinking were entered in a model predicting frequency and quantity of alcohol use and alcohol-related problems.

- Seventeen percent of the variance in frequency of alcohol use could be accounted for by these Femininity norms subscales ( $R^2 = .17, p < .05$ ). Nice Relationships and Invest in Appearance were no longer significant predictors of alcohol use frequency. Sexual Fidelity and Domestic remained significant ( $\beta = -.24, p < .05; \beta = -.21, p < .05$ , respectively).
- Eighteen percent of the variance in quantity of alcohol use could be accounted for by these subscales ( $R^2 = .18, p < .01$ ). Nice relationships and Sexual Fidelity were no longer significant predictors of alcohol use quantity. Thinness and Domestic remained significant ( $\beta = .22, p < .05; \beta = .23, p < .05$ , respectively).
- Finally, entered simultaneously, the subscales did not account for a significant proportion of variance in alcohol-related problems ( $R^2 = .09, p = .09$ ).

#### Conformity to Masculine Norms Inventory

All CMNI subscales, that were correlated with drinking, were entered in a model predicting frequency and quantity of alcohol use and alcohol-related problems.

- Nine percent of the variance in frequency of alcohol use could be accounted for by these Masculinity norms subscales ( $R^2 = .09, p < .05$ ). Playboy was the only masculinity subscale to uniquely predict drinking frequency ( $\beta = .16, p < .05$ ).
- Eight percent of the variance in quantity of alcohol use could be accounted for by these subscales ( $R^2 = .08, p < .05$ ). As with frequency, Playboy was the only masculinity subscale to uniquely predict drinking quantity ( $\beta = .20, p < .05$ ).
- Ten percent of the variance in alcohol-related problems could be accounted for by these Masculinity norms subscales ( $R^2 = .10, p < .05$ ). Power over Women and Playboy were the only subscales to uniquely predict alcohol-related problems ( $\beta = .14, p < .05; \beta = .16, p < .05$ , respectively).

Table 2

Correlations of CFNI and CMNI Total Scores and Subscales with Alcohol Use Frequency, Quantity, and Alcohol-related Problems

Scale	Alcohol Variables		
	Frequency	Quantity	Problems
CFNI			
Nice in Relationships	-.19*	-.20*	-.07
Thinness	.08	.23*	.21*
Sexual Fidelity	-.31**	-.27**	-.20*
Domestic	-.27**	-.28**	-.07
Invest in Appearance	.19*	.09	.21*
Total Conformity	-.17	-.15	-.004
CMNI			
Emotional Control	.16*	.03	.11
Risk-Taking	.19**	.11	.18**
Violence	.16*	.17*	.19**
Power Over Women	.06	.07	.20**
Playboy	.23**	.21**	.24**
Disdain for Homosexuals	-.04	.17*	.01
Total Conformity	.15*	.18*	.21**

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

## Discussion

This exploratory study examined how conformity to gender norms might be associated with alcohol-related behaviors and problems. Our findings suggest that adherence to masculinity presented with heightened risk for alcohol use and problems while adherence to femininity presented with a mix of risk and protective effects. Specific subscales on each gender measure clarified the nature and direction of the association between gender and alcohol use and problems. These findings suggest that this area of exploration is warranted and that further research on alcohol use and gender norm adherence appears indicated.

For women, pursuing a thin body ideal and committing resources to maintaining and improving physical appearance appeared to result in increased risk. On the other hand, a focus on developing friendly and supportive relationships with others, maintaining the home, and keeping sexual intimacy contained within one committed relationship appeared to result in decreased risk. These findings suggest that women's body image concerns appear to increase risk while a focus on relationships and "relational" sexuality may provide a protective effect against alcohol use and associated problems. It is worth noting that female college students with increased levels of alcohol use appear less likely to value sexual fidelity which may place them at increased risk for sexual assault and rape.

For men, preference for emotional control and an orientation towards risk taking and violence resulted in increased risk for alcohol use and problems. These findings suggest that these men are likely to drink more and to experience greater problems due to their drinking but are less likely to talk about these problems. The relation between these variables is an important consideration for providing alcohol interventions with men who are more likely to be resistive. As such, interventions based on motivational interviewing techniques may prove useful. In addition, campus officials may need to consider the importance of implementing a referral system since men are more likely to resist seeking services on their own.

Additionally, men's views of sexuality, dominance towards women, and homonegativity further contribute to their risk profile. In fact, The CMNI Playboy scale (non-relational sexuality and interest in multiple partners) appeared to account for most of the increases in risk. This is especially relevant since George and Stoner (2000) found that intoxicated men tend to falsely perceive cues of sexual advances from women. These findings suggest that gender conforming men may be at greater risk to commit sexual assault or rape than their gender non-conforming counterparts. As such, alcohol interventions with men may benefit from integrating violence and sexual assault prevention into their curriculum.

Given the exploratory nature of this study, several limitations exist. For example, our sample consisted of men and women who were mandated to an alcohol intervention. As such, our population may be more likely to engage in risky behaviors that led to their referral. Further investigation of the relationship between conformity to gender norms and non-referred college students' alcohol related behaviors and problems is needed. In addition, one recommended area of research would be to examine how conformity to gender norms may affect the effectiveness of alcohol interventions by relating outcomes to differential degree of adherence to gender norms.