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## Psychiatric Symptoms as a Predictor of Sexual Aggression among Male College Students

**ESTHER J. CALZADA,**

New York University School of Medicine Child Study Center, New York, New York, USA

**ELISSA J. BROWN,** and

Department of Psychology, St. John's University, Jamaica, New York, USA

**MEGAN E. DOYLE**

Department of Psychology, St. John's University, Jamaica, New York, USA

### Abstract

The goal of this investigation was to examine psychiatric symptoms as predictors of the frequency and severity of sexually aggressive behaviors that had been perpetrated by college-aged men in the past year. Over 400 undergraduate males completed an assessment of sexual aggression, athletic involvement, fraternity affiliation, alcohol and drug use, mistrust of women, depression, and social anxiety. More than 40% of the undergraduate men reported having participated in some form of sexual aggression within the past 12 months, 6% of whom reported having attempted or completed rape. Sexually aggressive behavior (both frequency and severity) was predicted by alcohol use, mistrust of women, and social anxiety. Results are the first to indicate that psychiatric symptoms might contribute to sexual aggression among college men.

### Keywords

college-aged men; depression; sexually aggressive behavior; social anxiety

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Approximately 18% of women have experienced attempted or completed rape, defined as forced oral, vaginal, or anal intercourse (Tjaden & Thoennes, 1998). The vast majority (83%) of these women were victimized before the age of 25 (Tjaden & Thoennes, 1998). One subset of these survivors is victims of child sexual abuse, defined as sexual touching by a caregiver prior to age 18. In contrast, sexual assault victims range in age from youth to older adults, and have been assaulted by peers, acquaintances, and strangers. The rate of sexual assault victimization, which includes sexual contact and sexual coercion, is estimated at 25% (Koss, 1993). Victimization appears to vary across panethnic and age groups (Tjaden & Thoennes, 1998). Specifically, self-report of rape victimization is highest among Native American women (34%) and lowest among Asian women (7%); among African American and non-Latino White women, approximately 1 in 5 report victimization. Across ethnic groups, teenage girls (16–19) and young adult women (20–24 years) are at highest risk for

sexual assault (Black, Heyman, & Smith Slep, 2001; Brown, 1997; Tjaden & Thoennes, 1998).

The impact of sexual aggression on its victims varies considerably and depends on demographic factors (e.g., Nguyen, Kaysen, Dillworth, Brajcich, & Larimer, 2010) as well as on the severity and frequency of the incidents, the attributions made by the victim regarding the incident, and the social support subsequently received by the victim (Berliner & Elliott, 2002; Weaver & Clum, 1995). Women who have been sexually assaulted have higher rates of posttraumatic stress disorder (PTSD), alcohol and substance use problems, anxiety, and depression (Kilpatrick & Acierno, 2003). Koss, Dinero, Seibel, and Cox (1988) found that more than a quarter of rape victims had formulated a suicide plan in the aftermath of the rape. Physical health problems, particularly related to sexual functioning, are also common among victims of sexual aggression (for a review, see Koss & Kilpatrick, 2001). The effects of rape are evident in both the short term and long term (Santiago, McCall-Perez, Gorcey, & Beigel, 1985).

Sexual aggression in college settings has received particular attention. Koss, Gidycz, and Wisniewski (1987) conducted a large survey of sexual victimization with a sample of more than 3,000 undergraduate women from across the United States and classified respondents according to the highest degree of sexual victimization they had experienced. Victimization was defined as involving “the use of menacing verbal pressure, misuse of authority, threats of harm, or actual physical force” (Koss et al., 1987, p. 166) by the perpetrator and included *sexual contact* (sexual behavior such as fondling or kissing that did not involve attempted penetration), *sexual coercion* (sexual intercourse), *attempted rape*, and *completed rape*. The majority of women (54%) revealed that they had experienced some form of sexual victimization since age 14. Twelve percent of these women reported having experienced attempted rape, and 15% reported having experienced completed rape. In a similar study of 3,642 female college students in Ontario, Newton-Taylor, DeWit, and Glikzman (1998) found that 15% had experienced sexual assault, including sexual coercion and rape, in the past year.

Among college women, high rates of sexual victimization might be in part a function of their living arrangements. Past studies have documented higher rates of sexual victimization of female students who lived on campus compared with those who lived at home, but not among students compared with same-aged peers who were not students (Buddie & Testa, 2005). Moreover, because most (92%) young female victims are sexually assaulted by an acquaintance, friend, or romantic partner (Brown, 1997; Tjaden & Thoennes, 1998), a coed college setting might provide more opportunities than other environments for sexual aggression to occur, particularly for students who live on campus.

Among college men, the majority (59%) report engaging in sexually aggressive behavior (Koss & Gaines, 1993). According to this survey, 6% of undergraduate men had attempted or completed rape, 7% had participated in sexual coercion (i.e., attempted or completed intercourse by using verbal pressure), and 12% had participated in unwanted sexual contact (e.g., nonconsensual touching of a woman's breasts). Other studies have found similarly high rates of sexual aggression (Abbey & McAuslan, 2004; Hersh & Gray-Little, 1998; Jackson,

Veneziano, & Riggen, 2004). Using male interviewers to elicit reports of sexually aggressive behavior from college men, Rubenzahl and Corcoran (1998) found even higher rates than those found using more traditional methodologies; 10% of their sample reported committing acquaintance rape and 24% admitted to a broader definition of the act.

The literature suggests that there are certain variables associated with perpetrator status. Based on a descriptive study of college men who were sexually aggressive, Koss et al. (1988) reported that the men were on average 18.5 years old, typically perpetrated the crime alone, knew their victim, and were on dates. Other researchers have suggested that college men who belong to fraternities or participate in sports might be at particular risk for becoming perpetrators of sexual assault. Fraternities have been described as “a physical and sociocultural context that encourages the sexual coercion of women” (Martin & Hummer, 1989, p. 216). Martin and Hummer more specifically implicate the atmosphere of fraternities (i.e., an emphasis on macho behavior, stereotyped views of women and the treatment of women as objects, and the secrecy of fraternity behavior) combined with behavioral risk factors (e.g., excessive alcohol use) as variables that contribute to high incidences of sexual aggression. There is some empirical evidence to suggest that affiliation with a fraternity predicts sexually aggressive behavior (Jackson et al., 2004; Lackie & DeMan, 1997). Athletic participation, particularly in varsity-level sports, is similarly believed to create an atmosphere conducive to sexually aggressive behavior perpetrated against women (Koss & Gaines, 1993), although findings are not as robust.

Koss et al. (1988) found that the majority of incidents of sexual aggression involved alcohol or drug use by both the perpetrator (74%) and his victim (75% based on male perception). Abbey, Clinton-Sherrod, McAuslan, Zawacki, and Buck (2003) found a linear relationship between victim alcohol consumption and severity of sexual assault. In contrast, a curvilinear relationship was found between perpetrator alcohol consumption and severity of sexual assault, such that higher severity was associated with moderate alcohol consumption. In addition to alcohol use preceding the sexual aggression incident, the perpetrator's propensity to abuse alcohol has been examined in the literature. Ullman, Karabatsos, and Koss (1999) found that, among college men who reported at least one incident of sexual aggression, 60% reported drinking alcohol at least one to three times a month and only 18% reported never getting drunk.

Hostility toward women has long been proposed to be a primary contributing factor in the rape of women (Check, 1985). Hostility refers to “an underlying, enduring personal attitude or disposition toward others [that] may or may not be accompanied by overt aggressive behavior” (Check, 1985, p. 31), and includes components of resentment and suspicion. Hostility toward women, more specifically, is believed to stem from past negative experiences with women (i.e., relationships with rejecting or domineering women) and is linked with an underlying mistrust of women. There is solid evidence that hostility toward women on the part of the perpetrator is related to sexually aggressive behavior (Koss & Gaines, 1993; Lackie & deMan, 1997). For example, Abbey and McAuslan (2004) found that male college students who were sexually aggressive were more likely to have hostile attitudes toward women, dating, and sexual experiences compared with their peers who had never committed a sexually aggressive act.

Although a fair amount is known about the affiliations, substance use, and beliefs of perpetrators of sexually aggressive acts, there is virtually no research examining the role of psychiatric functioning in sexually aggressive behavior. A few studies have examined some aspects of psychopathology and found that variables such as delinquency (i.e., criminal behavior) and psychopathic personality traits (i.e., aggressiveness, impulsivity, manipulateness, empathy, and sensation seeking) predict sexual aggression in men (Abbey & McAuslan, 2004; Hersh & Gray-Little, 1998; Jackson et al., 2004). The relation between externalizing behavior and aggression is well-established (Kazdin, Rogers, Colbus, & Siegel, 1987; Loeber, Farrington, Stouthamer-Loeber, & Van Kammen, 1998), although the extant literature has not established externalizing behavior in childhood or adolescence as a precursor of sexual aggression in adulthood. We found no studies that have examined symptoms of internalizing disorders as correlates or predictors of sexual aggression among men.

There is some evidence that depression and anxiety might be related to some forms of aggression. For example, researchers found a link between depression and verbal aggression, but failed to find a relation between depression and assaultive behavior among undergraduates (Selby & Neimeyer, 1986). Loudin, Loukas, and Robinson (2003) found that social anxiety is associated with relational aggression (defined as attempts to harm others through intentional manipulation of social relationships) in male college students. It is not known whether social anxiety is related to other forms of aggression, although some research suggests that individuals who show relational aggression also are overtly aggressive (Werner & Crick, 1999).

The goal of this study was to examine psychiatric functioning, along with substance use, sports involvement, Greek affiliation, and hostility toward women, as predictors of sexual aggression among college men. In a similar study, but one that did not consider psychiatric functioning variables, Koss and Gaines (1993) found that nicotine use, alcohol use, hostility toward women, and athletics accounted for 11% of the variance in sexual aggression. We expected that substance use, sports involvement, Greek affiliation, and hostility toward women would all be significant predictors of sexual aggression and that psychiatric functioning would make an additional, unique contribution to the prediction of sexual aggression.

## METHOD

### Participants

Four hundred and ninety-eight men attending a large Northeastern state university were recruited for participation during scheduled lecture periods of large survey courses taught in departments across the university. Four hundred twenty-nine (85%) of the men completed at least a subset of the measures for this study, and demographic information was available for 424 (99%) participants. The average age of the men was 20.3 ( $SD = 3.3$ ). Twenty-six percent ( $n = 113$ ) were first-year students, 31% ( $n = 134$ ) were sophomores, 29% ( $n = 123$ ) were juniors, and 14% ( $n = 59$ ) were seniors. Most of the sample (82%;  $n = 346$ ) was Caucasian, non-Latino. Five percent ( $n = 20$ ) was non-Latino African American, 5% ( $n = 20$ ) was Latino, 7% ( $n = 28$ ) was Asian American or Pacific Islander, 1% ( $n = 3$ ) was

American Indian or Alaskan Native, and 2% ( $n = 7$ ) was biracial. Only 2% ( $n = 8$ ) of the young men lived in fraternity houses, although 16% ( $n = 69$ ) were involved in the Greek system. The majority of students (84%,  $n = 359$ ) participated in sports on some level; 49% ( $n = 209$ ) participated informally, 20% ( $n = 86$ ) participated in a club sport, and 15% ( $n = 64$ ) of the students were involved in varsity sports.

## Measures

**Sexual Experiences Survey**—The Sexual Experiences Survey (SES; Koss & Gaines, 1993) is a self-report instrument designed to assess various degrees of sexual aggression perpetrated by men. The SES items are administered in yes–no format and include victimizing experiences of increasing severity (i.e., “touched a woman's buttocks, breasts, or genital area against her wishes,” “attempted sexual intercourse with a woman when she didn't want to by overwhelming her with continual argument and pressure”) and including rape (“had sexual intercourse with a woman when she didn't want to by using some degree of force”). The frequency of each item is rated from 0 (*never*) to 2 (*often*) “since you were 14 years old” and “in the past year,” resulting in two sub-scales. The reliability and validity of both subscales have been established with nonclinical populations (Koss & Gidycz, 1985).

In this study, men were grouped according to the most severe level of sexual aggression perpetrated in the past year. *Sexually aggressive behavior* was calculated based on the highest level of sexual aggression endorsed by the participant, as per Koss and Gaines (1993). *Sexual nonaggression* was assigned if participants responded *never* to all of the SES items. *Uninvited sexual advances* was assigned if they endorsed making catcalls, whistling, or yelling at a woman. *Unwanted sexual contact* was assigned if they endorsed touching a woman's buttocks, breasts, or genital area against her wishes. *Sexual coercion* was assigned if they had attempted or completed intercourse by using verbal arguments or pressure. Consistent with Koss's classification (Koss & Gaines, 1993), *attempted or completed rape* was assigned if they had attempted or completed intercourse by giving a woman alcohol or drugs, threatening bodily harm, or using physical force. Frequency of sexual aggression was evaluated on a 3-point scale that included 0 (*never*), 1 (*once or twice*), and 2 (*often*). Severity and frequency variables were calculated independently.

**Athletic involvement**—Participants were asked to rate their athletic involvement (from *do not participate* to *varsity*) on a list of 14 sports. Using Koss and Gaines's (1993) procedure, participants were classified by the highest level of their involvement in any of the sports.

**Greek affiliation**—Greek affiliation was assessed using a single item in which the men reported the degree to which they were associated with the Greek system (from *independent* to *Greek active*). Men who reported pledging a fraternity were coded as Greek affiliates.

**Substance use**—Substance use was assessed in terms of both the frequency (from *I do not drink* to *daily*) and effects (from *I do not drink* to *I get wasted*) of alcohol consumption. *Alcohol use* was calculated as the product of these variables (Koss & Gaines, 1993). To

assess illicit substance use, participants were provided with a list of seven drugs (plus an “other” category) and asked to endorse those substances that they used regularly. *Drug use* was calculated by summing the number of substances participants reported using regularly (Koss & Gaines, 1993).

**Mistrust of women**—This scale consists of eight true–false items that tap mistrust of women selected by Koss and Gaines (1993) from the original Hostility Toward Women Scale (Check, 1985). Items include “It is safer not to trust women,” and “When it really comes down to it, a lot of women are deceitful.” The number of endorsed items (i.e., “true” responses) was totaled, resulting in a summary Mistrust of Women score. These eight items showed good internal consistency in the current sample ( $\alpha = .83$ ).

**Beck Depression Inventory**—The Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a self-report measure designed to assess cognitive and behavioral symptoms associated with depression. Twenty-one characteristics are rated on a 4-point scale ranging from 0 (denial of experiencing symptoms at all or no more than typically experienced) to 3 (complete or extreme deterioration in belief or behavior), and summed for a total score. Beck, Steer, and Garbin (1988) provide a review of 25 years of evaluations of the BDI, which has shown adequate psychometric properties with nonpsychiatric and psychiatric populations.

**Social Avoidance and Distress Scale**—The Social Avoidance and Distress Scale (SADS; Watson & Friend, 1969), a subscale of the Social-Evaluative Anxiety Scale, is a 28-item, true–false questionnaire that measures social-evaluative anxiety. Scoring of the SADS involves summing all items that, given the response (true = 1 or false = 0), suggest social anxiety. Watson and Friend (1969) established adequate internal consistency and test–retest reliability. In an examination of the validity of the SADS, Heimberg, Acerra, and Holstein (1985) found that undergraduates with high SADS scores reported fewer positive self-statements in anticipation of a social interaction than did undergraduates with low SADS scores.

**Demographic form**—A demographic form asking for information regarding age, race and ethnicity, and college level (e.g., freshman) was used to assess demographic variables.

## Procedure

The sample was drawn from a larger study of the effects of disclosure of attempted or completed rape on dysphoria and social anxiety (Brown & Heimberg, 2001). The sample included only male student participants. Questionnaires were distributed and completed during class periods. All information on the male undergraduates was collected anonymously.

Students were told that the surveys contain personal questions and that participation was voluntary. The researchers informed students that they were being asked to complete questionnaires about their thoughts, feelings, and experiences. Three predetermined random orders of the measures were used for counterbalancing purposes. In all cases, the SES was administered last to minimize reactivity to the content of this assessment instrument.

## Statistical Analyses

Statistical analyses were designed to explore the relations among involvement in athletic and Greek activities, alcohol and drug use, mistrust of women, psychiatric symptoms, and sexually aggressive behavior in undergraduate men. Descriptive statistics were conducted to examine sample characteristics (demographics, participation in social organizations and activities, degree of sexual aggression). Demographic variables were dummy-coded for analytical purposes. To examine correlations between the variables of interest, an intercorrelation matrix was constructed. Only coefficients of .30 or greater were interpreted (Tabachnick & Fidell, 1989). Multiple regression analyses were conducted based on correlational findings. Predictor variables for the regression analyses were grouped as racial and ethnic background, involvement in organizations and activities (Greek affiliation, sports participation), substance use (number of drugs used regularly, severity  $\times$  frequency of alcohol use), mistrust of women, and psychiatric symptoms (SADS, BDI). Criterion variables were severity and frequency of sexually aggressive behavior.

## RESULTS

### Severity and Frequency of Sexual Aggression

We examined frequencies on the SES categorical variables to determine the highest level of sexual aggression that occurred in the past year. Most of the sample ( $n = 247$ ; 58%) reported being sexually nonaggressive, but almost half ( $n = 169$ ; 42%) reported being sexually aggressive in the past year. More than 20% of the sample ( $n = 89$ ) engaged in uninvited sexual advances, 10% ( $n = 42$ ) engaged in unwanted sexual contact, and 4% ( $n = 15$ ) engaged in sexual coercion. Six percent ( $n = 23$ ) of the men reported attempting or completing a rape in the past year. Of the men who reported attempting or completing rape, 83% did so by using verbal pressure, 52% used alcohol, 13% threatened physical force, and 30% used physical force (note that any given perpetrator likely used more than one means of coercion).

Among the men who reported being sexually aggressive ( $n = 169$ ), one third ( $n = 56$ ; 33%) reported engaging in sexually aggressive acts “several times” or “often” in the past year. As presented in Table 1, the frequency of sexually aggressive acts was highest for less severe (i.e., uninvited sexual advances) sexual aggression acts.

### Comparisons by Greek Affiliation and Athletic Involvement

More than half of the men with Greek affiliations (52%;  $n = 36$ ) engaged in sexually aggressive behavior in the past year, compared with 36% ( $n = 121$ ) of the men who were not involved in the Greek system,  $\chi^2(2, N = 409) = 7.42, p < .05$ . Similarly, the men who were involved in sports were more likely to report sexual aggression than the men who were not. Twenty-seven percent ( $n = 16$ ) of the men who were not involved in sports on any level engaged in sexually aggressive behavior in the past year, compared with 35% ( $n = 74$ ) of the men involved informally in sports, 52% ( $n = 45$ ) of the men involved in club sports, and 39% ( $n = 25$ ) of the men involved in varsity level college sports,  $\chi^2(6, N = 420) = 15.51, p < .05$ .

## Relations between Variables

A correlation matrix was computed to examine the relation between the predictor and criterion variables. After a Bonferroni correction, which set  $p < .01$ , there were several significant, albeit modest, correlations. As presented in Table 2, alcohol use, drug use, and mistrust of women were correlated in the expected directions with both frequency and severity of sexual aggression.

Two sets of multiple hierarchical regression analyses were conducted for (a) frequency and (b) severity of sexually aggressive behavior. Predictor variables included: racial and ethnic background (Step 1), involvement in organizations (Greek affiliation, highest level of sports participation; Step 2), substance use (number of drugs used regularly, severity  $\times$  frequency of alcohol use; Step 3), attitudes toward women (Mistrust of Women subscale; Step 4), and psychiatric symptoms (SADS, BDI; Step 5). Results are presented in Tables 3 and 4.

In the prediction of the frequency of sexually aggressive behavior, Steps 2 through 5 were significant. As expected, the final step, which included the psychiatric symptom variables, contributed significantly to the prediction of the frequency of sexual aggression, explaining an additional 2% of the variance. The final model was significant, with alcohol use, mistrust of women, and the SADS as significant predictors of the frequency of sexually aggressive behavior.

Results from regression analyses using severity of sexually aggressive behavior as the criterion variable were similar to those for frequency of sexually aggressive behavior. Steps 2 through 5 were significant, and the psychiatric symptom variables contributed an additional 2% of the variance in severity of sexual aggression. The final model was significant: Alcohol use, mistrust of women, and the SADS emerged as significant predictors.

## DISCUSSION

This study examined predictors of sexual aggression in a sample of undergraduate male students. Almost half the sample (42%) reported engaging in sexually aggressive behavior in the past year: 21% reported engaging in uninvited sexual advances, 10% in unwanted sexual contact, 4% in sexual coercion, and 6% in attempted or completed rape. Among men who reported being sexually aggressive, one third (33%) engaged in sexually aggressive behavior at least several times in the past year; 26% of the men who attempted or completed rape had done so several times or often in the past year. These findings are consistent with other studies of college-aged men (Hersh & Gray-Little, 1998; Jackson et al., 2004; Koss & Gaines, 1993).

Also consistent with past studies, our results suggest that men who were involved in the Greek system and in sports were more likely than non-Greeks and nonathletes to engage in sexual aggression. These findings underscore the high prevalence of sexual aggression in college settings, particularly in certain ecological niches within a college setting, and have implications for preventive efforts.



We found that alcohol use, mistrust of women, and social anxiety predicted both the frequency and the severity of sexual aggression. There is a solid literature documenting that alcohol use and mistrust of women are key variables in the study of sexual aggression toward women, but our study is the first that we know of to examine indexes of psychiatric functioning in a study of sexual aggression in a community sample of men.

Our results indicate that social anxiety, but not depression, was related to sexual aggression. Men with higher levels of social anxiety, or those who worry excessively about the impression they have on others in social interactions, were more likely to report a higher severity and frequency of sexual aggression. One possible explanation is that the relation between social anxiety and sexual aggression is mediated by substance use; in other words, anxious men might use more substances in an attempt to self-medicate, which makes them more prone to engage in sexually aggressive behavior. In this sample, there was a significant but modest correlation between self-reported alcohol use and social anxiety. It is also possible that socially anxious men believe that sexual prowess will gain them acceptance and use sexually aggressive behavior as a means of fitting in with their peers. For example, college-aged men might elicit (or believe that they will elicit) a positive reaction from their peers by making “cat-calls,” touching a woman inappropriately against her wishes, or recounting their sexual experiences with a woman. These study results could serve to alert mental health professionals working with college men about a possible relation between social anxiety and sexual aggression.

There are limitations to our study that must be noted. First, our results are based on a sample of undergraduate men and cannot be generalized to the general population of adult men or sexual perpetrators. In addition to age, the sample was relatively homogenous in terms of race, ethnicity, and educational attainment. Also, our data are limited in their reliance on self-report, which is subject to reporting bias, and because it is correlational. In addition, the participants completed the measures while sitting next to their peers, which might have biased their reporting of inappropriate sexual behavior. Future research should include large, longitudinal studies using a nationally representative, ethnically diverse sample and with a more comprehensive assessment of characteristics hypothesized to be significant in the prediction of sexually assaultive behavior.

In addition, future research should focus on developing preventive interventions. For example, psychoeducational programs could be housed within fraternities or sports clubs and target social skills and underlying attitudes toward women with the aim of reducing the propensity among male undergraduates to view women negatively and to experience anxiety during social interactions, both of which can contribute directly and indirectly to increased alcohol use and a higher likelihood of engaging in sexual aggression. Such preventive efforts are likely to be key in reducing the high rates of sexual victimization found in college settings.

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**TABLE 1**

Self-Reported Levels of the Severity and Frequency of Sexual Aggression Acts

Severity classification	<i>n</i> %		Frequency			
			Once or twice		Several times or often	
			<i>n</i>	%	<i>n</i>	%
Sexually nonaggressive	247	58	N/A	N/A	N/A	N/A
Sexually aggressive	169	42	113	67	56	33
Uninvited sexual advances	89	21	53	60	36	40
Unwanted sexual contact	42	10	29	70	13	30
Sexual coercion	15	4	14	93	1	7
Attempted or completed rape	23	6	17	74	6	26

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**TABLE 2**

Descriptive and Correlational Statistics for Independent and Dependent Variables

Independent variables	Range	<i>M</i>	<i>SD</i>	Severity <i>r</i>	Frequency <i>R</i>
Drug use	0-7	1.77	1.51	.14 *	.19 **
Alcohol use	1-20	6.99	4.39	.29 **	.26 **
Mistrust of women	0-8	5.09	2.55	-.17 *	-.17 **
Depression (BDI)	0-42	7.97	7.14	.10	.10
Social anxiety (SADS)	0-28	7.81	6.83	-.12	-.10

*Note.* BDI = Beck Depression Inventory; SADS = Social Avoidance and Distress Scale.

\*  
 $p < .01$ .

\*\*  
 $p < .001$ .

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**TABLE 3**

Summary of Hierarchical Regression Analysis Predicting Severity of Sexual Aggression

Variable	<i>B</i>	<i>SEB</i>	$\beta$	<i>R</i> <sup>2</sup>
Step 1: Demographics				.00
Race or ethnicity	.02	.02	.07	
Step 2: Involvement in organizations				.03**
Greek affiliations	.04	.07	.03	
Athletic participation	.03	.03	.06	
Step 3: Substance use				.06**
Alcohol use	.02	.01	.19**	
Drug use	.00	.02	-.02	
Step 4: Hostility toward women				.01*
Mistrust of women	-.03	.01	-.14**	
Step 5: Psychiatric symptoms				.02*
Depression (BDI)	.00	.00	.09	
Social Anxiety (SADS)	-.01	.00	-.18**	

Note. BDI = Beck Depression Inventory; SADS = Social Avoidance and Distress Scale. Final model:  $F(8, 347) = 5.93, p < .001, R^2 = .12$ .

\*  $p < .05$ .

\*\*  $p < .01$ .

**TABLE 4**

Summary of Hierarchical Regression Analyses Predicting Frequency of Sexual Aggression

Variable	<i>B</i>	<i>SEB</i>	$\beta$	<i>R</i> <sup>2</sup>
Step 1: Demographics				.00
Race or ethnicity	.03	.03	.05	
Step 2: Involvement in organizations				.03 <sup>*</sup>
Greek affiliations	.10	.11	.05	
Athletic participation	.03	.05	.03	
Step 3: Substance use				.05 <sup>**</sup>
Alcohol use	.02	.01	.13 <sup>*</sup>	
Drug use	.02	.03	.04	
Step 4: Hostility toward women				.03 <sup>**</sup>
Mistrust of women	-.06	.02	-.19 <sup>**</sup>	
Step 5: Psychiatric symptoms				.02 <sup>*</sup>
Depression (BDI)	.00	.01	.09	
Social Anxiety (SADS)	-.02	.01	-.17 <sup>**</sup>	

Note. BDI = Beck Depression Inventory; SADS = Social Avoidance and Distress Scale. Final model:  $F(8, 349) = 6.13, p < .001, R^2 = .12$ .

\*  $p < .05$ .

\*\*  $p < .01$ .