This study examined the relationship between sexual assault and membership in high-risk fraternities and athletic teams. Although past research has identified fraternities and athletic teams as high-risk groups for sexual assault, the findings have been inconclusive. Based on student perceptions, we separated fraternities and athletic teams into high-risk and low-risk groups. A survey of 182 male students, including those who were members of three fraternities and five athletic teams as well as nonmembers, indicated that the high-risk groups scored significantly higher than the low-risk groups on measures of sexual aggression, hostility toward women, and male peer support endorsing sexual aggression. These findings showed that some fraternity or athletic team members are more likely to commit sexual assault than males in the general student population, but this is not true for all such groups. The results help explain inconsistencies reported by previous researchers.

Fraternities, Athletic Teams, and Rape

Importance of Identification With a Risky Group

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Sexual assault occurs within the United States at an alarmingly high rate. Most current research (Kahn, Andreoli Mathie, & Torgler, 1994; Koss, Gidycz, & Wisniewski, 1987; Muehlenhard & Linton, 1987) shows that between 14% and 27.5% of college women have been sexually assaulted. In a random sample of 1,835 Canadian college and university women, DeKeseredy and Kelly (1995) found that more than 45% of the women studied had been victims of some form of sexual abuse since leaving high school.

Although legal definitions are often broad in scope, members of society usually define rape as vaginal, oral, or anal intercourse against a person's will. Women ages 16 to 24 experience rape at rates four times higher than the

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assault rate of all women (Parrot, Cummings, Marchell, & Hofher, 1994; Rennison, 1999). Because most college women fall into the age range of 16 to 24, they are at a high risk of experiencing sexual assault. When women who were assaulted were asked where the assault took place, the majority reported that it occurred on a college campus (Copenhaver & Grauerholz, 1991; Koss et al., 1987; Muehlenhard & Linton, 1987). A college campus can be a dangerous place for women students, and rape is a serious crime with long-lasting physical and mental health effects (Golding, 1996; Goodman, Koss, & Russo, 1993).

Who are the men who commit rapes on college campuses? Much literature has focused on fraternity and athletic team members as more likely than their nonmember colleagues to commit sexual assaults. Although fraternity and athletic team rapes have often made newspaper headlines (e.g., Martin & Hummer, 1989), the published research has presented mixed findings. One reason for the inconclusive findings of past research might be that researchers treated all athletic teams and fraternities as a homogeneous group. However, there is evidence that fraternities vary widely in their attitudes toward women and their behavior toward them, especially at parties (Boswell & Spade, 1996). A few fraternities, for instance, emphasize community service or scholastic achievement. By identifying fraternities and athletic teams perceived by others as creating a party atmosphere either more or less conducive to sexual assault, we hoped to clarify the relationship between athletic team and fraternity membership and sexual assault.

A number of studies have examined the relationship between fraternity and/or athletic team membership and sexual assault, with mixed results. Jackson (1991) administered self-report questionnaires regarding personal experiences of sexual assault to male and female college athletes. He concluded that, compared to previously published data, self-reports of assaults by athletes were no higher than those of nonathletes. Koss and Gaines (1993) administered self-report questionnaires to psychology students and football team members. They found that athletic team membership and fraternity membership were significantly related to the severity of sexual aggression, but only athletic team membership made a significant contribution to the prediction of sexual aggression severity. In a similar study, Lackie and de Man (1997) found that fraternity membership, but not athletic team participation, predicted sexual aggression. Frintner and Rubinson (1993) mailed questionnaires to 1,500 college women, asking about the extent of sexual victimization and their most sexually stressful event since entering college. Of the women who had been sexually assaulted, members of fraternities and athletic teams were the assailants in a much higher proportion of the assaults than would be expected by their proportions on campus. In support of the relationship between fraternity and athletic team membership and sexual assault, Boeringer (1999) found greater endorsement of rape-supportive attitudes among fraternity and athletic team members than among nonmember controls.

One key to understanding these conflicting findings might be that some but not all fraternities and athletic teams offer environments conducive to sexual assault. Part of the reason for this may come from the atmosphere that exists within the fraternity or athletic team. It might be that those groups whose parties create an atmosphere conducive to sexual assault and whose members have a strong peer-support system for sexual assault are the ones whose members are most likely to commit sexual assault. Other fraternities and athletic teams may have parties in which the atmosphere is less conducive to sexual assault and in which there is little peer support for assault.

Boswell and Spade (1996) found that party atmospheres differed among fraternities. They asked women to identify which fraternities were highest and lowest risk for sexual assault. Next, they examined the social interactions at the four highest- and four lowest-risk fraternities. One of the researchers observed social interactions at fraternity parties and at bars, noting the atmosphere and social interactions. Boswell and Spade found that parties at low-risk fraternities were different from those in high-risk houses. In low-risk houses, the parties were friendlier, they usually had an equal number of women and men, and the men treated the women respectfully. On the other hand, high-risk houses generally had skewed gender ratios, with either more women or men; gender segregation often occurred; and the men typically treated the women in more degrading ways. Boswell and Spade concluded that the settings of parties at the high-risk fraternities were less conducive to conversation and, as a result, were more likely to be places where sexual aggression occurred. As the music volume increased at the high-risk fraternities, so did crowds. As the opportunity to talk decreased, the men became more aggressive and degrading toward women.

Being a member of a high-risk group may not be sufficient, in itself, to increase the likelihood of assaultive behavior; rather, one may also have to identify with the group and see it as a reference group. DeKeseredy and Kelly (1995), in a Canadian National Study, administered a questionnaire to 95 undergraduate classes across Canada, reaching 1,307 men. The questionnaire asked for demographic information, self-reported incidence of sexual assault, information on male peer support for sexual assault, and current dating status. The male peer-support section examined three different variants of peer support: informational support, regarding how much the participant's male friends influenced the participant to sexually, physically, and psychologically assault his dating partner; attachment to abusive male peers, tested

by measuring the participant's response to three questions about his friends; and perceived peer pressure from the participant's friends to have sex. DeKeseredy and Kelly found that informational support and attachment to abusive peers were significantly correlated with sexual abuse. Nearly 8% of the total variance in sexual abuse was explained by the two variables.

Schwartz and Nogrady (1996) obtained similar findings to those of DeKeseredy and Kelly (1995). They found no differences between fraternity members and nonmembers in rape-myth acceptance, peer support that encourages sexual assault, or victimization. However, they did find that the level of perceived male peer support that encourages sexual assault was significantly correlated with self-reported sexual assault.

It is likely that some fraternities and athletic teams are more prone to sexual assault than others. Past studies have focused only on the general categories of athletic teams and fraternities, ignoring the possibility that specific athletic teams and fraternities might be more sexually aggressive than others. We hypothesized that members of fraternities and athletic teams that others perceive as having a party atmosphere conducive to sexual assault will report higher levels of sexual aggression and higher hostility toward women than members of fraternities and athletic teams perceived to have a party atmosphere less conducive to assaultive behaviors. In addition, we hypothesized that the more members of perceived high-risk groups identified with their group, the greater their assaultive behavior.

METHOD

Risk Assessment

To assess the potential risk of sexual assault posed by male members of fraternity and athletic teams, 52 upper-level students (36 women, 8 men, and 8 who did not identify their gender), completed a questionnaire that listed all 17 fraternities and all 16 male athletic teams (both varsity and club) on campus. For each group, participants responded on a 5-point scale that ranged from 1 = not at all likely to 5 = highly likely the extent to which the group's parties create an atmosphere conducive to sexual offenses. If respondents were unfamiliar with a group's party atmosphere, they were told to leave that question blank. Additional questions asked participants to indicate their membership in an athletic team or fraternity and their gender. The students rated two fraternities and two athletic teams as the most risky groups, with means ranging from 3.42 to 3.92. In addition, they rated one fraternity and three athletic teams as least risky, with means ranging from 2.00 to 2.37.

Participants

The first author distributed questionnaires to the four highest-risk and four lowest-risk groups. In addition, male students from the psychology department participant pool and students from a number of upper-level psychology classes completed the questionnaire. Altogether, 182 male students, including 33 high-risk athletic team members, 33 high-risk fraternity members, 21 low-risk athletic team members, 49 low-risk fraternity members, and 46 nonmembers served as participants. No one refused to participate. The participants were 87.9% White, 6% African American, 2.7% Hispanic, 1.1% Asian, and .5% Native American, and they had an average age of 19.8.

Measures

A 12-question version of the Sexual Experiences Survey (Koss & Gaines, 1993) was used to measure sexual aggression. Koss and Gidycz (1985) reported an internal consistency reliability of .89 for men and the 1-week testretest agreement rate of 93%. For the current study, we found α = .83. Using Koss and Gaines's (1993) method of categorizing level of sexual aggressiveness, a score of 0 represented sexual nonaggression and was assigned when a man responded *never* to all of the survey items. A score of 1 represented uninvited sexual advances to women, including catcalls. A score of 2 represented unwanted sexual contact, and a score of 3 represented sexual coercion, indicating that the respondent had attempted or completed sex through arguments or verbal pressure. The final level, a score of 4, indicated attempted or completed rape.

Participants indicated their Greek affiliation and participation in club or varsity sports and completed Koss and Gaines's (1993) measure of drug use and drinking intensity. Drinking frequency was measured on a scale ranging from 1 = I do not drink to 5 = drink daily, as well as drinking intensity on a scale ranging from 1 = I do not drink to 4 = I get wasted. Participants completed an eight-item hostility-toward-women scale derived from the Hostility Toward Women Scale (Check, Malamuth, Elias, & Barton, 1985). Koss and Gaines (1993) found these eight items had the highest correlation with sexual aggression. For the current study we found $\alpha = .80$ for this measure. Seven additional questions from DeKeseredy and Kelly's (1995) measure of male peer support assessed the level of male peer support that the participants received from their friends (Cronbach's $\alpha = .70$).

Procedure

The first author distributed the questionnaire through direct contact with the athletic team or fraternity at a practice or meeting. In two cases, the questionnaire was dropped off with the head of the athletic team or the head of the fraternity to be completed at a future time. Students in upper-level psychology courses signed up to fill out the questionnaire at the same time as the subject pool participants. These participants completed the surveys in groups ranging in number from 1 to 10. Strict confidentiality was ensured, and no identifying information was ever attached to the questionnaires.

RESULTS

The results for sexual aggression were consistent with our hypotheses. We hypothesized the perceived high-risk groups would score higher on the measure of sexual aggression than either the perceived low-risk groups or the nonmember participants. Because the measure of sexual aggression had only ordinal properties, the Mann-Whitney Test was used to compare groups on sexual aggression. Consistent with our expectations, members of perceived high-risk groups reported committing significantly more sexual aggression (mean rank = 105.55) than did members of perceived low-risk groups and subject pool participants combined (mean rank = 83.50), U = 2900.5, p < .01. Excluding the nonmember participants, we found a significant difference between the perceived high-risk group members (mean rank = 75.98) and perceived low-risk group members (mean rank = 61.45), U = 1816.5, p < .05. There were no significant differences in sexual aggression between the perceived low-risk groups and the nonmember participants (U = 1425.5, p =.27), the perceived high-risk fraternity members and perceived high-risk athletic team members (U = 523, p = .77), and the perceived low-risk fraternity members and the perceived low-risk athletic team members (U = 502.5. p = .87).

As predicted, high-risk and low-risk groups also differed in their level of hostility toward women using a one-way ANOVA, F(2, 179) = 26.57, p < .001. The members of perceived high-risk groups scored significantly higher on hostility toward women (M = 4.38) than did perceived low-risk group members (M = 2.11) and nonmember participants (M = 1.85). Tukey HSD Post-Hoc test revealed that the perceived high-risk groups showed significantly more hostility toward women than both the perceived low-risk groups and nonmember participants. The latter two groups were not significantly different from one another.

We expected and found differences between perceived high-risk and low-risk groups on the measure of male peer support for sexual assault using a one-way ANOVA, F(2, 179) = 7.57, p < .001. Using Tukey's HSD posttests, we found that members of perceived high-risk groups expressed significantly greater peer support for sexual assault against women (M = 0.74) than did members of perceived low-risk groups (M = 0.11). However, the nonmember group (M = .39) did not significantly differ from either perceived high-risk or low-risk groups.

Some difference in drug use by high-risk and low-risk participants occurred. There were no significant differences between perceived high-risk and perceived low-risk on nicotine use (U = 2004, p = .076), caffeine use (U = 2308, p = .992), or alcohol use (U = 2200, p = .482). However, the perceived high-risk groups scored significantly higher than the perceived low-risk groups on marijuana use (U = 1783, p < .001), drinking frequency (U = 1856, p < .05), and drinking intensity (U = 1688, p < .01).

We also hypothesized that the more members of a perceived high-risk group identified with their group, the greater their reported level of sexual assault. Unfortunately, this hypothesis could not be tested. Nearly all members of the high-risk groups (84.8%) said most of their friends were members of their fraternity or sports team.

Finally, we performed a direct logistic regression analysis on group membership and two predictors, hostility toward women and male peer support. A test of the model with only hostility toward women as a predictor was significant, χ^2 (1, N=43.04), p<.0001, indicating that hostility toward women alone predicts group membership. We entered male peer support at Step 2 and, as expected, it significantly increased our ability to predict group membership, $\Delta R^2 = .02$, $\chi^2(2, N=182) = 4.915$, p<.05. A test of the full model with both predictors was statistically reliable, χ^2 (2, N=182) = 47.96, p<.0001, indicating that the predictors, as a set, reliably distinguished between high-risk and low-risk members, with more than 20% of the variance explained by the model, $R^2=20.11$.

DISCUSSION

Do members of fraternities and athletic teams differ from nonmembers in their likelihood of sexual assault? Consistent with the hypotheses and findings of this study, the answer is, "it depends." Group membership, per se, did not differentiate these groups from nonmember controls; rather, there were stark differences between groups perceived to have parties that created a high risk for sexual assault and those groups perceived to have parties that created a low risk for sexual assault. Members of perceived high-risk groups reported significantly higher levels of sexual aggression toward women, hostility toward women, and male peer support for sexual violence toward women than members of perceived low-risk groups. These results help explain why other investigators have not found a consistent relationship regarding sexual aggression, fraternities, and athletic teams. Not all fraternities and athletic teams are equal in their propensity to engage in sexual assault.

More research needs to examine the factors producing the higher levels of sexual aggression and hostility toward women in high-risk group members when compared to the rest of the student population. Are members of high-risk groups individuals who already have high levels of hostility toward women and who have engaged in sexual aggression toward women before joining the group? If so, when they come to college, they may seek others who are similar to themselves (Cappella & Palmer, 1990; Carli, Ganley, & Pierce-Otay, 1991; Festinger, 1954) and join groups of similarly minded people. Alternatively, it may be that the level of sexual aggression increases or decreases after members join a fraternity or athletic team with well-developed norms and values. In fact, these mechanisms may work differently for fraternities and athletic teams. Because membership on an athletic team is based on skills and a desire to continue competition in that sport, it may be that team members conform to norms of existing team members after they have become a member of the team. However, men who pledge a fraternity may seek out one whose members appear to hold norms and values similar to their own. For example, O'Connor, Cooper, and Thiel (1997) found that male first-year college students with a history of heavy alcohol consumption pledge fraternities in greater proportion than medium- and low-consumption students.

The findings of this study, as well as the research by Boswell and Spade (1996), suggest that high- and low-risk groups are easily identifiable by members of the college community. Their high visibility and ease of identification might allow sexual assault—prevention education to be focused on those groups that have reputations for high levels of sexual aggression, instead of including those fraternities and athletic teams whose members are far less likely to be involved in sexually assaultive behaviors. Although education about sexual assault is still a good idea for all college students, concentrating on specific groups may be a more cost-effective method of reducing sexual assault on college campuses.

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