Sexual Aggression and Participation in Greek Organizations

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Facts about Sexual Aggression

- Sexual aggression (SA) refers to sexual activity where consent is not freely given and ranges in severity from unwanted sexual contact to completed rape

- SA offenders are usually males and known to their victims

- SA has adverse psychological, physical, social, and educational consequences
Sexual Aggression among College Students

• SA among college students has received increased attention following the report from the White House Task Force to Protect Students from Sexual Assault as well as expanded requirements of Title IX pertaining to sexual harassment and violence
Prevalence of Sexual Aggression among College Students

• A seminal national study found 25% of male students had perpetrated at least one act of SA since age 14 (4% completed rape, 3% attempted rape, 7% sexual coercion, & 10% unwanted sexual contact) (Koss, 1987)

• Past-year incidence: 10% to 15% of male students report some form of SA perpetration (Abbey & McAuslan, 2004; White & Smith, 2004)

• 20 to 25% of female students experience attempted or completed rape during college (Fisher et al., 2000)
Factors Contributing to Sexual Aggression among College Students

• Age range of college students connotes risk:
  ➢ 18-24 year old females have highest rate of SA victimization compared to females in all other age groups
  ➢ 80% of female victims experience first rape before age 25

• Context of college also may increase risk:
  ➢ Decreased parental monitoring
  ➢ Increased alcohol use
  ➢ Increased sexuality
Membership in Greek Organizations & Sexual Aggression

- A national survey conducted with approximately 20,000 female college students found sorority members were 1.5 times more likely to have experienced rape as compared to non-members (Mohler-Kuo et al., 2004)

- A meta-analysis of 15 studies including over 5,000 male students from college campuses across the U.S. revealed a significant association between fraternity membership and perpetration of SA (Murnen et al., 2007)
Membership in Greek Organizations and Sexual Aggression

• More research is needed to understand why sorority and fraternity members experience relatively high levels of SA
  – Can illuminate factors that contribute to SA
  – Can assist prevention efforts

• Prior research has identified two behavioral factors (i.e., number of sexual partners, risky alcohol use) that may account for the association between membership in Greek organizations and experiencing SA
Sorority Membership, Number of Sexual Partners, and Sexual Aggression

- In a study of 1,020 female students at a large, public university in the Northeast, sorority members reported more sexual partners than did non-members (Scott-Sheldon et al., 2008)

- In a study of 335 female students at a mid-size, public university in the Midwest, number of sexual partners was positively correlated with experiencing rape (Walker et al., 2011)
Fraternity Membership, Number of Sexual Partners, and Sexual Aggression

• In a study of 525 male college students at an urban university in the Midwest, fraternity members reported more sexual partners in the prior year than did non-members (Scott-Sheldon et al., 2008)

• In a study of 343 male college students at a large, public university in the Midwest, those who had a higher number of sexual partners were more likely to perpetrate SA (Abbey et al., 2011)
Sorority Membership, Risky Alcohol Use and Sexual Aggression

• In a national study with 8,218 female college students, sorority members were more likely to engage in binge drinking than were non-members (Wechsler et al., 2009)

• In a study of 179 female students at a large, urban university in the Northeast, the odds of experiencing SA were 19 times greater on days of heavy alcohol consumption than on days no alcohol was consumed (Parks et al., 2008)
Fraternity Membership, Alcohol Misuse, and Sexual Aggression

• A national study with over 1,400 male college students found fraternity members were more likely to engage in binge drinking than were non-members (Simone, 2007)

• A study of 500 male students at a large, public university in the Midwest, those who consumed greater quantities of alcohol when drinking were more likely to engage in SA (Gervais et al., 2014)
Two Studies Will be Presented

• This presentation examines links between membership in Greek organizations and SA in two studies conducted at a large, public university in the southeastern U.S.

• One study was conducted with female students and had a cross-sectional research design

• One study was conducted with male students and had a longitudinal design
The Studies Had Three General Objectives

• To document rates of SA victimization among female college students and SA perpetration among male college students

• To examine associations between membership in Greek organizations and SA

• To examine if certain hypothesized risk factors account for the association between membership in Greek organizations and SA
Female Study

- This cross sectional study was conducted in March and April, 2007
- 720 first-year students (~54% of first year class) were recruited via email & flyers
- Over 5 weeks, the students came to the university’s student health center to complete an anonymous, self-report survey
- The survey took about 20 minutes to complete
- A $15 gift certificate was used as an incentive for participation
Measure of Sexual Aggression

• The Sexual Experiences Survey (Koss, 1987; 2007), the most widely used measure of sexual victimization & perpetration, also was used here

• This survey uses behaviorally-specific questions to assess for completed rape, attempted rape, sexual coercion (intercourse subsequent to verbal pressure or misuse of authority), and unwanted sexual contact
Measures of Risk Factors

• Risky alcohol use --- participants were asked how often they had gotten drunk since the beginning of the school year

  – The item defined drunk as feeling unsteady or dizzy, or having a sick stomach, after drinking

  – Responses made on a 7-point scale, with options ranging from 1 ("not at all") to 7 ("4 – 7 times a week")
Measures of Risk Factors

- Number of sexual partners --- Participants were asked how many different sexual partners they had since the beginning of the school year

  - The item defined a sexual partner as someone with whom they had engaged in any sexual activity, including but not limited to intercourse

  - Responses made on a 11-point scale, with options ranging from 0 (“none”) to 10 (“10 or more”)
Data analytic strategy

- Descriptive statistics conducted using SPSS 23

- Mediation tested using PROCESS (Hayes, 2013)
  - Outcome: Dichotomized measure of SA to reflect any victimization v. none
  - Predictor: Sorority membership
  - Hypothesized mediators: Risky alcohol use, number of sexual partners
# Sexual Victimization During First Year of College

<table>
<thead>
<tr>
<th></th>
<th>Since at Clemson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonvictim</td>
<td>82.3%</td>
</tr>
<tr>
<td>Unwanted Sexual Contact</td>
<td>15.4% (8.2%)</td>
</tr>
<tr>
<td>Sexual Coercion</td>
<td>5.1% (3.3%)</td>
</tr>
<tr>
<td>Attempted Rape</td>
<td>5.1% (3.1%)</td>
</tr>
<tr>
<td>Rape</td>
<td>3.1% (3.1%)</td>
</tr>
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</table>
## Descriptive Values for Analytic Variables

<table>
<thead>
<tr>
<th></th>
<th>$M$</th>
<th>$SD$</th>
<th>$N$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of Getting Drunk</td>
<td>2.55</td>
<td>1.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Sex Partners</td>
<td>2.24</td>
<td>2.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any SA Victimization</td>
<td></td>
<td></td>
<td>128</td>
<td>18</td>
</tr>
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### Bivariate Associations among the Study Variables

<table>
<thead>
<tr>
<th>Sorority</th>
<th>Risky Alcohol Use F</th>
<th>M</th>
<th>SE</th>
<th>No. of Sex Ptrs. F</th>
<th>M</th>
<th>SE</th>
<th>X²</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorority</td>
<td>68.32***</td>
<td></td>
<td></td>
<td>23.86***</td>
<td></td>
<td></td>
<td>2.63+</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2.24</td>
<td>.07</td>
<td></td>
<td>1.95</td>
<td>.11</td>
<td></td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3.34</td>
<td>.11</td>
<td></td>
<td>2.95</td>
<td>.17</td>
<td></td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05; *** p < .001; + p = .06
Mediation model: Testing indirect effect of risky drinking

Significant indirect effect: $z = 2.94$

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$
Mediation model: Testing indirect effect of multiple sexual partners

Significant indirect effect: $z = 3.52$
* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$
Summary of Female Study

• Increased risk of sexual victimization among sorority members appears to be due to sorority members’ having higher levels of risky drinking and more sexual partners

• However, cross-sectional design limits conclusions about the directional nature of these associations

• Also limited by focus on only two mediating risk factors
Male study

• Longitudinal study with three annual assessments (beginning in 2008)

• Grounded in three constructs found in Theory of Planned Behavior: Attitudes, Norms, and Behavioral Control
Sample and Procedures

- First-year students recruited via email & flyers to come to student health center to complete confidential, self-report surveys

- 800 students (54% of first year class) completed surveys at end of their first year (T1), 651 (81%) completed follow-up surveys at end of their second year (T2), and 604 (76%) completed follow-up surveys at end of their third year (T3)

- Surveys took about 20 minutes to complete, were conducted over a two week period, and participants were paid $20 at T1 and T2 and $25 at T3
Analytic Sample

- 424 participants (53% of the original sample) who had not joined a fraternity as freshmen:
  - Excluded students who joined a fraternity as freshmen ($n = 189; 24\%$) in order to be able to control for baseline differences between those who joined and did not join a fraternity
  - Excluded students who joined a fraternity as juniors ($n = 5; .006\%$)
  - Excluded students who did not complete a survey at T2 and/or T3 ($n = 177; 22\%$)
Measure of Sexual Aggression Perpetration

• The Sexual Experiences Survey was used to assess SA perpetration at T1 and T3

• The T3 measure served as the outcome variable and the T1 measure served as a control variable
Measure of Fraternity Membership

• A single item asked if respondents were members of a Greek fraternity

• Among the 424 students in the study who were not in a fraternity at T1, 28 (7%) had joined a fraternity by T2
Measures of Risky Attitudes

• The 19-item Rape Supportive Attitudes Scale (e.g., “When women talk and act sexy, they are inviting rape” had a 5-point response format (α’s = .90 and .91 at T1 and T2, respectively)

• A 8-item version of the Hostility toward Women Scale (e.g., I think most women would lie to get ahead” had a 5-point response format (α’s = .90 and .91 at T1 and T2, respectively)
Measures of Risky Peer Influences

- A 3-item measure with a 4-point response format assessed *peer pressure to have sex* (e.g., “How much pressure do you feel from your friends to have sex with many different women?” (α’s = .78 at T1 and T2, respectively)

- A 6-item measure with a 4-point response format assessed *peer approval of forced sex* (e.g., “Do your friends approve of getting a woman drunk or high in order to have sex with her?“; α’s = .78 and .81 at T1 and T2, respectively)
Measures of Risky Behaviors

• A single-item measure with a 6-point response format assessed risky alcohol use by asking how often participants had consumed 5 or more drinks in 2 hours or less in the preceding two weeks, with options ranging from 0 to 5 (10 or more times)

• A single-item measure with an open-ended response format assessed the number of vaginal or anal sex partners that participants had since age 14
Data analytic strategy

• Descriptive statistics conducted using SPSS 23
• Mediation tested using MPLUS
  – Outcome: Dichotomized measure of SA at T3
  – Predictor: Fraternity membership (joined between T1 & T2)
  – Hypothesized mediators at T2: rape supportive attitudes, hostility towards women, peer pressure for sex, peer approval of forced sex, high-risk drinking, multiple sexual partners
  – Controlled for T1 outcome and T1 hypothesized mediator variables
### SA Perpetration Rates

<table>
<thead>
<tr>
<th>Non-perpetrator</th>
<th>First year*</th>
<th>Second year*</th>
<th>Third year*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unwanted Sexual Contact</td>
<td>8.4% (2.4%)</td>
<td>9.9% (2.7%)</td>
<td>9.3% (3.0%)</td>
</tr>
<tr>
<td>Sexual Coercion</td>
<td>6.8% (3.4%)</td>
<td>7.4% (4.8%)</td>
<td>7.3% (5.0%)</td>
</tr>
<tr>
<td>Attempted Rape</td>
<td>3.5% (1.1%)</td>
<td>3.6% (1.7%)</td>
<td>3.2% (1.3%)</td>
</tr>
<tr>
<td>Rape</td>
<td>4.5% (4.5%)</td>
<td>4.9% (4.9%)</td>
<td>3.7% (3.7%)</td>
</tr>
</tbody>
</table>

*During college  
*Note: Numbers in parentheses represent hierarchical coding.
Correlations among Study Variables

TABLE 2. Intercorrelations Among Variables Included in the Analytic Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>T2 Fraternity member</th>
<th>T2 Hostility toward women</th>
<th>T2 Rape-supportive beliefs</th>
<th>T2 Peer approval of forced sex</th>
<th>T2 Peer pressure to have sex</th>
<th>T2 High-risk drinking</th>
<th>T2 Number of sexual partners</th>
<th>T3 Sexual aggression</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2 Fraternity member</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2 Hostility toward women</td>
<td>0.04</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2 Rape-supportive beliefs</td>
<td>0.02</td>
<td>0.63</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2 Peer approval of forced sex</td>
<td>0.10</td>
<td>0.39</td>
<td>0.24</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2 Peer pressure to have sex</td>
<td>0.15</td>
<td>0.32</td>
<td>0.18</td>
<td>0.62</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2 High-risk drinking</td>
<td>0.20</td>
<td>0.20</td>
<td>0.10</td>
<td>0.35</td>
<td>0.33</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2 Number of sexual partners</td>
<td>0.09</td>
<td>0.08</td>
<td>-0.03</td>
<td>0.18</td>
<td>0.10</td>
<td>0.23</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>T3 Sexual aggression</td>
<td>0.20</td>
<td>0.34</td>
<td>0.25</td>
<td>0.37</td>
<td>0.24</td>
<td>0.31</td>
<td>0.12</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note. All correlation coefficients above .09 were statistically significant at the p < .05 level.
FIGURE 1. Path analysis showing standardized parameter estimates. Nonsignificant paths are not shown. T1 variables allowed to correlate; T2 variables allowed to correlate.
Conclusions

• Both studies point to risky alcohol use as contributing to the association between membership in Greek organizations and SA.

• The female study also indicates the number of sexual partners contributes to higher rates of SA among sorority members.

• Although the female study identifies behaviors that increase risk for SA, it is important to recognize perpetrators bear responsibility for SA incidents.
Limitations

• Studies were conducted at one university in the southeastern U.S. and thus the findings may not be representative of college students as a whole

• The cross-sectional nature of the female study limited any causal inferences about the associations among the study variables

• Both studies, and especially the female one, examined a limited number of risk factors and it is likely other factors may account for increased risk for SA among members of Greek organizations
Implications

• High rates of SA among members of Greek organizations point to potential fruitful targets for preventive interventions

• Interventions to prevent SA should address the risks of alcohol use among members of both fraternities and sororities

• Interventions to prevent SA among sorority members should highlight the risks associated with having multiple sexual partners


References

- U.S. Department of Justice. Rape and sexual assault among college-age females, 1995 - 2013.