Repeat Experiences of Incapacitated Sexual Assault: Is Increased Drinking a Contributor?

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Introduction

- Prior research has established that one experience of sexual victimization increases the risk for experiencing subsequent sexual victimization, both across developmental periods (e.g., Messman-Moore & Long, 2003) and within adulthood (Daigle, Fisher, & Cullen, 2008). This phenomenon is known as sexual revictimization.
- Sexual revictimization has been found to hold specifically for experiences of ***incapacitated sexual assault*** (***ISA***; Messman-Moore, Ward, & Zerubavel, 2013). For the purpose of this study, we consider ISA to include any experience in which the victim is too intoxicated to consent or resist, either following voluntary or involuntary consumption of drugs or alcohol.
- ISA is highly prevalent, with 22.1% of rape cases nationally and 46.0% of rape cases in college students involving incapacitation (Kilpatrick, Resnick, Ruggiero, Conoscenti, & McCauley, 2007).
- Though ISA can involve the use of many different drugs (e.g., Olszewski, 2009), alcohol stands out as an especially important factor in ISA. Not only is alcohol the most common substance involved in ISA (Olszewski, 2009), victims also tend to increase their drinking following experiences ISA (Kaysen, Neighbors, Martell, Fossos, & Larimer, 2006), including in situations that precede sexual activity (Bird, Gilmore, George, & Lewis, 2016). Similarly, recent findings suggest a reciprocal relationship between alcohol use and sexual victimization more generally (Bryan et al., 2016; Testa & Livingston, 2000).
- Together, these findings suggest that increased alcohol use following incapacitated sexual assault may be a risk factor for repeat experiences of ISA. To date, however, the question of whether alcohol use increases risk for repeated experiences of ISA has not been examined. Understanding the mechanisms underlying repeat ISA may help identify targets to prevent this highly prevalent form of violence.

Current Study

- Drawing on these findings, the present study utilized longitudinal data to examine whether experiences of ISA increase risk for subsequent ISA via increased alcohol consumption.
  - **Hypothesis 1**: Prior ISA will increase risk for subsequent ISA.
  - **Hypothesis 2:** There will be an indirect effect from prior ISA to subsequent ISA through increased alcohol use.

Method

Participants

- Participants were 449 community women ages 18 to 25 (M = 21.7, SD = 2.2) recruited from one of four sites (Lincoln and Omaha, Nebraska; Oxford, Ohio; Jackson, Mississippi) for a larger multi-wave study of sexual revictimization. Women completed self-report measures once every 4 months for 16 months (a total of 5 assessments).
- With regard to ethnicity, 60.8% identified as European American, 35.9% African American, 5.6% Latina, 4.2% Asian, 3.3% American Indian, and 2.4% Other (more than one ethnicity could be endorsed).
- Though participants were recruited from the community, 62.1% were full- or part-time students.

Measures

- The **Modified Sexual Experiences Survey** (Messman-Moore, Walsh, & DiLillo, 2010) is a self-report questionnaire used to assess unwanted sexual experiences with men in adulthood. At the first wave, participants reported on experiences since the age of 18; at subsequent waves, participants reported new experiences in the past 4 months (or since the last assessment). Endorsement of ISA was indicated by four behaviorally-specific questions assessing sex acts (oral, anal, or vaginal intercourse; attempted intercourse; digital penetration; penetration by an object) that occurred when the participant was incapable of consent due to drugs or alcohol.
- The **Alcohol Use Disorders Identification Test-Consumption questions** (AUDIT-C; Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998) assess current alcohol use (i.e., amount and frequency). The scale consists of three items, each with responses ranging from 0 to 4. A sum score was computed to represent participants' overall level of alcohol use. The AUDIT-C has been shown to perform better than the full 10-item AUDIT foridentifying heavy drinkers (Bush et al., 1998). For the current study, coefficients alpha for each wave ranged from .76 to .81.

Analytic Rationale

- Associations between ISA and alcohol over 5 waves were tested using an autoregressive panel model in M*plus* v. 7.3 (Muthén & Muthén, 1998-2012). Maximum likelihood estimation was used to handle missing data.
- After examining the effects of adding and constraining paths via likelihood ratio tests, the final model included lag-3 autoregressive effects of both ISA and alcohol, as well as cross-lagged effects. Paths of the same lag were constrained to be equal. Though we considered correlating residuals of variables assessed at the same wave, constraining these correlations to zero did not reduce the fit of the model (p = .77), so they were not retained in the final, most parsimonious model.
- Bias-corrected 95% confidence intervals were estimated using 5000 bootstrap resamples.

Results

Descriptive Statistics

- At the first assessment, 111 (24.7%) women reported a history of ISA in adulthood. At each follow-up assessment, the percent of women reporting ISA within the past four months ranged from 2.1% to 7.3%.
- At the first assessment, AUDIT-C scores (M =2.91, SD = 2.5) were near the suggested cut-score of 3 for heavy drinking (Bush et al., 1998). Mean AUDIT-C scores for follow-up waves ranged from 2.56 to 2.90.

Hypothesis 1: Repeat ISA Victimization

- ***Results supported Hypothesis 1*** in that ISA victims were more likely than other participants to experience ISA within the subsequent 4 months (b = 1.38, 95% CI: 0.74, 1.92) and 8 months (b = 1.78, 95% CI: 0.86, 2.67).

Hypothesis 2: The Role of Alcohol in Repeat ISA

- New reports of ISA were associated with greater alcohol use over the subsequent 4 months (b = 0.68, 95% CI: 0.30, 1.13). In turn, more alcohol use was associated with increased risk of ISA within the following 4 months (b = 0.15, 95% CI: 0.05, 0.24).
- ***In support of Hypothesis 2***, there was a significant indirect effect from ISA to increased alcohol use over the next 4 months, to increased risk of ISA reported at the following wave (b = 0.10, 95% CI = 0.03, 0.21).

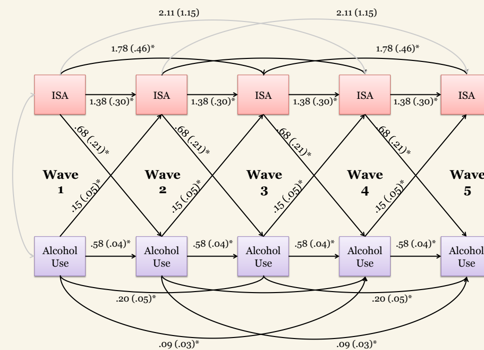

Figure 1. Unstandardized estimate (standard errors) are shown. Non-significant pathways are in gray. *p < .05

Discussion

- Building on the sexual revictimization literature (e.g., Messman-Moore & Long, 2003), current findings suggest that revictimization holds specifically for experiences of ISA. Further, current findings reveal not only that one experience of ISA increases risk for a subsequent ISA victimization (consistent with Messman-Moore et al., 2013), but also that this pattern continues across multiple assessments.
- Current results also reveal a spiraling effect, whereby each ISA experience is associated with greater subsequent alcohol use, which is in turn associated with an increased risk for ISA. This suggests that increased drinking may be a common, yet maladaptive means to cope with post-trauma distress, which inadvertently increases risk for additional assaults.
- The present finding that alcohol use is an important mechanism underlying risk for repeat ISA is inconsistent with the one prior prospective study, which did not find alcohol use to increase risk for subsequent ISA (Messman-Moore et al., 2013). However, the current study may represent a more robust examination of ISA revictimization given the large community sample followed over 16 months, compared to Messman-Moore and colleagues' (2013) study of college women over 10 weeks. Additional research is needed to replicate and clarify the role of typical drinking patterns in risk for repeat ISA.

Limitations and Directions for Future Research

- Given that data were only available for female victims and male perpetrators, it is unclear whether the current results extend to experiences of male victims or female perpetrators. Little is known about the experience of male victims of adult sexual assault; thus, future research is particularly encouraged in this area.
- Alcohol use is but one pathway for understanding repeat experiences of ISA. Further research is needed to explore additional mechanisms, such as service utilization, emotion dysregulation, and cognitions related to both alcohol use and trauma.

Clinical Implications

- Current findings highlight the need for alcohol-focused interventions tailored for young women with a history of ISA. It is important to note that, even though victims of sexual assault may turn to maladaptive coping behaviors (e.g., alcohol use) that subsequently increase risk for further victimization, this by no means suggests that they are to blame for assaults. Instead, examining mechanisms underlying revictimization places the focus on behaviors that can be targeted through interventions to reduce risk.
- Web-based programs to reduce risk of both sexual assault and alcohol use in college women have shown some efficacy (Gilmore, Lewis, & George, 2015), and may be effective in targeting ISA specifically. Bystander intervention programs targeting sexual assault (e.g., Bringing in the Bystander, Green Dot; Banyard, Moynihan, & Plante, 2007; Coker et al., 2011) could also be adapted to address sexual risk situations exacerbated by alcohol use on the part of the victim, perpetrator, or both.

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