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The Differential Influence of Drinking, Sensation Seeking, and Impulsivity on the Perpetration of Unwanted Sexual Advances and Sexual Coercion

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Introduction

There are staggering rates of sexual assault on college campuses, with 23% of women and 19% of men reporting being a victim of unwanted sexual experiences during college (Conley et al., 2017). These numbers affirm the necessity of early detection of risk factors that may lead to perpetration of sexual coercion during college. Identifying risk factors among certain individuals before entry to college allows for the opportunity to intervene to prevent sexual coercion. Furthermore, some men will perpetrate once, while others will become repeat offenders, and being able to decipher unique risk factors for these categories of perpetrators could augment current prevention efforts (Abbey & McAuslan, 2002). Thus, this longitudinal study examined three potential risk factors measured among men at the end of high school (i.e., alcohol use, impulsivity, and sensation seeking) and their prospective association with different levels of sexual coercion perpetration across the course of college.

Alcohol and Sexual Coercion Perpetration

The transition into college is often characterized by a sharp increase in behavioral risks. In particular, college students report significantly higher and more frequent rates of consuming alcohol, a behavior that can exacerbate the risk for other more detrimental outcomes including sexual coercion perpetration (e.g., Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004). In fact, consuming more drinks in the past four hours was associated with a higher likelihood of using aggressive tactics to have sex with a new partner relative to consuming fewer drinks (Testa et al., 2015). Additionally, two recent review papers found substantial support for an effect of alcohol on sexual coercion perpetration (Abbey, Wegner, Woerner, Pegram, & Pierce, 2014; Tharp et al., 2013).

Although evidence indicates that alcohol is associated with perpetration, there is some indication that alcohol may not be a prospective risk factor for unwanted sexual coercion perpetration, especially when taking into account past history of perpetration (Loh, Gidycz, Lobo, & Luthra, 2005). Additionally, in a sample of women reporting on their most recent incident of sexual assault victimization, results indicated that higher levels of intoxication of

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the perpetrator decreased the likelihood of assault involving completed sexual intercourse (Testa, Vanzile-Tamsen, & Livingston, 2004). Furthermore, in a longitudinal sample of college men, neither the between nor within-person effects of heavy episodic drinking (i.e., 4 drinks for women/5 drinks for men) prospectively predicted sexual assault perpetration in subsequent semesters (Testa & Cleveland, 2016). One possibility may be that alcohol influences sexual coercion perpetration differently based on level of severity (i.e., unwanted sexual touching vs. completed sexual intercourse). Thus, this study tested how alcohol use prior to college entry prospectively influenced perpetration of different types of unwanted sexual experiences throughout college.

Impulsivity, Sensation Seeking, and Sexual Coercion Perpetration

Another possibility is that there are underlying facets of personality that influence the perpetration of unwanted sexual experiences. There is some evidence that facets of the five-factor model of personality are related to perpetration (Voller & Long, 2009), but few studies have examined the influence of trait impulsivity and sensation seeking on sexual coercion perpetration. This is surprising since impulsivity is highly associated with myriad behavioral risks including problematic alcohol use (Ashenhurst, Harden, Corbin, & Fromme, 2015), drug use (de Wit, 2009), and risky sexual behavior (Dir, Coskunpinar, & Cyders, 2014). Impulsivity is defined as predisposition towards acting without thoroughly thinking through the outcome (Dick et al., 2010; Quinn & Harden, 2013). Among a sample of male college students, compared to non-perpetrators and perpetrators who were not consuming alcohol, students who reported perpetrating alcohol-related sexual assault had higher levels of impulsivity (Zawacki, Abbey, Buck, McAuslan, & Clinton-Sherrod, 2003). Further, impulsivity is associated with higher scores on a sexual aggression scale (Spence, Losoff, & Robbins, 1991). Strikingly, impulsivity measured at baseline predicted a 12% greater likelihood of perpetrating sexual assault at follow up among a sample of men (Davis, Danube, Stappenbeck, Norris, & George, 2015). These results provide preliminary support for an association between impulsivity and sexual coercion perpetration, but follow up is necessary to determine whether impulsivity also influences less extreme forms of unwanted sexual advances.

Even less well studied is the association between sensation seeking and sexual coercion perpetration. Sensation seeking is defined as the propensity to seek out novel and exciting new experiences (Ashenhurst, Harden, Corbin, & Fromme, 2015; Quinn & Harden, 2013). There is some evidence that having a history of sexually coercive behavior (relative to no history) is associated with higher levels of sensation seeking (Lalumière & Quinsey, 1996). Impulsive decision-making, but not sensation seeking, however, was correlated with having sex under pressure, suggesting that sensation seeking may not be related to unwanted sexual intercourse (Donohew et al., 2000). Importantly, these results did not focus on perpetration. More specifically, sexual sensation seeking, or the tendency to seek out novel and exciting sexual experiences, has been shown to be associated with sexual assault victimization, but has not been examined in relation to perpetration (Monks, Tomaka, Palacios, & Thompson, 2010). Further, those who seek out novel situations are more likely to engage in risky sex (Deckman & DeWall, 2011), which may extend into unwanted sexual encounters. Additional work is necessary to determine whether sensation seeking is associated with

sexual coercion perpetration. To our knowledge, this is the first study to test the prospective association between sensation seeking and perpetration of unwanted sexual advances (i.e., fondling, kissing, or petting) and sexual coercion (i.e., sexual intercourse through arguments, pressure, or physical force) separately.

Synergistic Effect of Personality and Alcohol Use

Whereas there is support for the influence of impulsivity (Davis et al., 2015) and drinking (e.g., Abbey et al., 2014) on sexual coercion perpetration, little research has examined the combined influence of these factors. In fact, multiple review papers have highlighted the necessity of examining whether facets of personality moderate the effect of alcohol on sexual coercion perpetration (Antonia Abbey, 2011; Abbey et al., 2014). It may be that personality supersedes the influence of drinking on perpetration of sexual coercion, or it may be that these two factors cumulatively exacerbate risk for perpetration. Thus, this paper tested the interaction between high school personality (i.e., sensation seeking and impulsivity) and drinking on perpetration of unwanted sexual advances and sexual coercion during the subsequent six years.

Present Study

This study tested whether risk factors measured the summer before matriculation to college predicted men's later perpetration of unwanted sexual advances and sexual coercion during the subsequent six years. Because of the high rate of sexual coercion in college, it is essential to determine important risk factors before the start of college. Thus, this study was designed to identify these early risk factors so that they might inform future prevention efforts. Importantly, this study examined the independent and moderating influence of alcohol use, impulsivity, and sensation seeking on different frequencies and levels of severity of unwanted sexual advances (i.e., one-time vs. multiple times, unwanted sexual advances vs. sexual coercion). Additionally, this study allowed us to determine whether a main effect of alcohol, above and beyond important personality measures, influenced perpetration of unwanted sexual advances. We hypothesized that impulsivity would be related to more serious levels of perpetration, while sensation seeking would be related to less severe forms of perpetration. Further, we predicted that alcohol use would be a significant predictor of all forms sexual perpetration. Finally, we predicted that alcohol use variables would interact with sensation seeking and impulsivity to predict greater risk for perpetration of both unwanted sexual advances and sexual coercion.

Methods

Participants

Participants were recruited for a 10 wave longitudinal study the summer before they started college at a large, public university. A subset of those targeted for recruitment expressed interest in participation, met the inclusion criteria of being between the ages of 17–19 years old, unmarried, and providing valid contact information, and were randomized into the longitudinal arm of the study ($N = 2,245$). Further, we limited our sample to male participants who completed the wave 1 survey ($N = 901$). Participants began completing surveys in summer 2004 and completed a total of 10 surveys across six years. Participants

completed a survey the summer after high school (wave 1), twice annually for the next three years (waves 2–7), and once annually for the last three years (waves 8–10). There was significant attrition among the male participants by wave 10 of data collection ($N = 515$). Overall, the full sample used in analyses was 55% White, 19% Asian, 3% Black, 14% Hispanic, and 6% multiethnic/other, which was representative of the larger host institution (The University of Texas Board of Regents, 2006). At wave 1, participants had an average age of 18.4 ($SD = 0.4$). For more detailed information about the sample see Fromme, Corbin, & Kruse, 2008; Hatzenbuehler, Corbin, & Fromme, 2008.

Procedure

Participants completed online surveys across all 10 waves. For these analyses we used the wave 1 survey where participants provided information about their family income, ethnicity, typical frequency and quantity of drinking, impulsivity, and sensation seeking. The following waves of data were used to compile the sexual coercion and unwanted sexual advances variables. Participants were compensated \$25 for wave 1, \$20 for each survey they completed for waves 2–7, and \$40 for surveys across waves 8–10. The University Institutional Review Board approved all procedures and survey measures.

Measures

Demographics—Participants reported on demographics at wave 1, which included gender, age, family income, and ethnicity. All ethnicity variables were coded into White, Asian, Hispanic, and given the relatively low rates of all other categories, “Other” (including Black, Mixed, American Indian, and “other”).

Quantity of alcohol use—Participants answered a question on the Daily Drinking Questionnaire (DDQ; Collins, Parks, & Marlatt, 1985) about the typical quantity of alcohol consumed during the past 3 months. Answers were open-ended so that participants could provide the typical number of alcoholic beverages they consumed on each drinking day for a typical week. For these analyses, the average number of drinks on a drinking day was used as a continuous variable. This variable is based on “standard drinks” where a standard drink equals 1.5 fluid ounces of liquor, 5 fluid ounces of wine, or 12 fluid ounces of beer.

Frequency of alcohol use—An open-ended format was used to ask about typical frequency of drinking on each day of the week during the past 3 months from the DDQ (Collins et al., 1985). A sum score of the total number of days during an average week where alcohol was consumed was used as a continuous variable to measure typical drinking frequency for these analyses.

Impulsivity and sensation seeking—Respondents completed a questionnaire on impulsivity and sensation seeking from the Zuckerman-Kuhlman Personality Questionnaire (Zuckerman, Michael, Joireman, Teta, & Kraft, 1993). The Impulsivity scale had 8 items and the Sensation Seeking scale had 11 items measured on a dichotomous scale (0=*false*, 1=*true*), which were used to create two separate continuous sum scores for impulsivity and sensation seeking. The Impulsivity scale included items such as “I often do things on impulse” and the Sensation Seeking scale included items such as “I like to do things just for

the thrill of it.” Both the Impulsivity ($\alpha = .73$) and Sensation Seeking ($\alpha = .71$) scales had adequate internal consistency.

Unwanted sexual advances and sexual coercion—Two items were adapted from a revised version of the Sexual Experiences Survey (Abbey, McAuslan, & Ross, 1998; Koss & Oros, 1982) to assess perpetration of unwanted sexual experiences. Our measure of ‘unwanted sexual advances’ asked about past 3 month perpetration of “unwanted advances or unwanted sex play (e.g., fondling, kissing, or petting, but not sexual intercourse) and ‘sexual coercion’ was defined as “coercing someone into having sexual intercourse through arguments, pressure, or physical force.” Participants provided responses on a seven-point Likert scale (0 = *never*, 6 = *more than 20 times*). Based on participant responses a sum score was created across waves 2–10 for the total number of times male participants reported engaging in unwanted sexual advances and sexual coercion separately. After creating a sum score across college and the transition out of college, each variable was separated into three categories: Never perpetrated, one-time perpetrator, and multi-time perpetrator separately for unwanted sexual advances and sexual coercion.

Data Analytic Plan

Using SPSS version 23 we ran a series of logistic regressions to determine the main effects of high school drinking quantity, drinking frequency, impulsivity, and sensation seeking on the likelihood of men being a one-time or multi-time perpetrator of unwanted sexual advances and sexual coercion during college. All predictor variables were left continuous. We ran four separate models that in step one tested the effect of self-reported alcohol use, impulsivity, and sensation seeking on the likelihood of being a one-time perpetrator of unwanted sexual advances, a multi-time perpetrator of unwanted sexual advances, a one-time perpetrator of sexual coercion, and a multi-time perpetrator of sexual coercion summed across waves 2–10. In step two we tested the interactions between personality and alcohol use on likelihood of perpetration. Perpetration status in each model was considered relative to participants who reported never perpetrating unwanted sexual advances or sexual coercion across waves 2–10. In each model, we controlled for ethnicity and high school family income.

Results

In our sample, 23% ($n = 209$) reported perpetrating at least one instance of unwanted sexual advances and 10% ($n = 95$) reported perpetrating sexual coercion the six years after matriculation into college. These rates of perpetration are similar to other national (Association of American Universities, 2015) and institution-specific (The University of Texas System Health Institutions, 2017) rates of perpetration of unwanted sexual experiences during college. Descriptive and demographic statistics for the sample including high school drinking frequency, drinking quantity, impulsivity, and sensation seeking are presented in Table 1.

Unwanted Sexual Advances

Individuals who reported one instance of unwanted sexual advances ($N = 70$) were compared to non-perpetrators ($N = 684$). In step 1 ($\chi^2(8) = 22.08, p < .01$), we found that those who consumed greater quantities of alcohol during a typical week the summer before college had a 12% higher likelihood of being a one-time perpetrator of unwanted sexual advances during college (Table 2). Additionally, those who endorsed higher levels of sensation seeking were 16% more likely to perpetrate one instance of unwanted sexual advances during college. There were no other significant main effects. Step 2 was not significant ($\chi^2(4) = 2.85, p = 0.58$), indicating that the interactions between personality and alcohol use did not explain a significant amount of variance in the likelihood of perpetrating one instance of unwanted sexual advances. Because of the lack of significance, interaction terms were removed from the model for parsimony.

Next, individuals who reported multiple instances of unwanted sexual advances ($N = 139$) were compared to non-perpetrators. Step 1 ($\chi^2(8) = 37.95, p < .001$) indicated that identifying as Asian and Black/other was associated with 47% and 49% lower odds, respectively, of perpetrating multiple instances of sexual advances relative to White individuals. Additionally, having a higher family income was associated with 12% greater odds of reporting multiple instances of perpetrating unwanted sexual advances. Finally, reporting higher levels of impulsivity was associated with a 16% greater likelihood of perpetrating multiple instances of unwanted sexual advances. There were no additional significant main effects. Step 2 was not significant ($\chi^2(4) = 0.58, p = 0.97$), which meant that the interactions between personality and alcohol use did not explain a significant amount of variance in the likelihood of perpetrating multiple instances of unwanted sexual advances. Interaction terms were removed from the final model.

Sexual Coercion

In step 1 ($\chi^2(8) = 18.76, p < .05$), there were no significant main effects that predicted increased likelihood of perpetrating one-time sexual coercion (Table 3). Further, step 2 was not significant ($\chi^2(4) = 6.26, p = 0.18$), which meant that the interactions between personality and alcohol use did not explain a significant amount of variance in the likelihood of perpetrating one instance of sexual coercion and were removed from the model. Next, we ran a model that included perpetrating multiple instances of sexual coercion as the outcome variable. In step 1 ($\chi^2(8) = 32.58, p < .001$), those who identified as Asian had a 24% lower likelihood of perpetrating multiple instances of sexual coercion relative to White participants. Additionally, those who indicated higher levels of impulsivity had a 36% greater likelihood of perpetrating multiple instances of sexual coercion across college relative to non-perpetrators. There were not additional main effects for multi-time sexual coercion perpetrators. Step 2 was not significant ($\chi^2(4) = 3.65, p = 0.46$), which meant that the interaction terms were not significant and were removed from the model for parsimony.

Discussion

In a sample of emerging adult men, this study tested the influence of alcohol use, impulsivity, and sensation seeking measured the summer before college on perpetration of

unwanted sexual experiences during the subsequent six years. Uniquely, these analyses examined different types and levels of severity of perpetration. Our hypotheses were partially supported, as sensation seeking was associated with a higher likelihood of perpetrating unwanted sexual advances (i.e., kissing, fondling, or petting), whereas impulsivity was associated with perpetrating multiple instances of unwanted sexual advances and sexual coercion (i.e., forced sexual intercourse). Conversely, consuming more alcohol during drinking events was only associated with perpetration of one-time unwanted sexual advances and there were no significant interactions between personality and alcohol use. Overall, these analyses suggested that assessment of personality, and to some extent drinking patterns during high school, could be used to identify those men at greater risk for perpetration of unwanted sexual advances throughout and during the transition out of college. Thus, allowing the potential to tailor interventions during the transition into college to decrease perpetration of sexual coercion.

These results supported previous findings that have shown that impulsivity and sensation seeking predict unique sexual risk behaviors (Donohew et al., 2000). In our sample, sensation seeking was shown to predict increased likelihood of perpetrating one instance of unwanted sexual advances during college. Thus, men who have a propensity to seek out novel, thrilling experiences may search for opportunities for excitement with sexual partners. Most of the time these experiences likely come in the form of normative sexual practices such as having more partners (Spitalnick et al., 2007) and experimenting sexually. In more extreme cases, men higher in sensation seeking may force these novel sexual experiences on an unwilling partner. Additionally, men high in sensation seeking may actively seek out more thrilling situations that could eventually lead to perpetrating unwanted sexual behavior (Charnigo et al., 2013). Our results indicated that sensation seeking, however, does not increase the risk for a man to be a repeat offender of unwanted sexual encounters.

Impulsivity, on the other hand, was associated with increased risk for perpetration of multiple instances of unwanted sexual advances and sexual coercion. Whereas, men high in sensation seeking may seek out novel experiences, those higher in impulsivity may struggle to control their behavior once in stimulating environments. Similarly, in a sample of heterosexual men, impulsivity was associated with more frequent unprotected sexual behavior, whereas sensation seeking was associated with unprotected sex with more partners (McCoul & Haslam, 2001). As with unprotected sex, acting in the moment without regard for future consequences may contribute to risk for perpetrating more frequently. Importantly, our results showed that impulsivity was predictive of perpetrating multiple instances of unwanted sexual intercourse, the most extreme form of sexual coercion. These findings support previous work that showed higher levels of impulsivity, but not sensation seeking, was predictive of “unwanted sex under pressure” (Donohew et al., 2000).

Additionally, our findings that implicate impulsivity as a risk factor for being a repeat offender of perpetration mirror similar findings that highlight psychopathy as a unique risk factor for repeated perpetration among sexual offenders (Hanson & Morton-Bourgon, 2005). In particular, sexual offenders with higher levels of psychopathy are at greater risk for recidivism (Serin, Mamilloux, & Malcolm, 2001). In our sample of relatively low-risk college students, impulsivity may be a better indicator of risk for repeat perpetration than

psychopathy given our sample were not known sex offenders at the start of data collection. To better understand this association, future research could examine different facets of impulsivity (e.g., negative urgency, lack of premeditation) that may explain this association more fully.

When controlling for personality, our results indicated that greater weekly quantity of drinking was associated only with increased risk for perpetrating one instance of unwanted sexual advances, but not with being a repeat perpetrator. Overall, these results support previous findings that have shown alcohol to be a weak predictor of perpetration of sexual assault (Loh et al., 2005). Our results did indicate, however, that drinking more on drinking days during high school was associated with a 12% greater likelihood of one-time perpetration of unwanted sexual advances during college. This highlights alcohol as a situational factor that may lead to a one-time terribly consequential error in judgment, contributing to unplanned perpetration of unwanted sexual advances. Alcohol may not be an independent risk factor of becoming a repeat offender, something that may be better explained by personality predispositions. Furthermore, we did not find that alcohol use interacted with personality to predict greater risk for perpetration. Instead, these factors appeared to act separately on perpetration. Overall, our results provided further support for personality being a strong risk factor of repeat perpetration, but alcohol may be a unique risk factor for one time, less severe forms of unwanted sexual advances.

Implications

These results emphasize the importance of providing tailored prevention modules designed to decrease the incidence of perpetration of unwanted sexual experiences. Previous meta-analyses that examined the efficacy of prevention efforts designed to decrease risky sexual behavior have shown that prevention interventions tailored to an individual, rather than uniformly administered interventions, showed greater effects on decreasing risky sexual behaviors (Noar, 2008; Noar, Black, & Pierce, 2009). Additionally, there are tailored interventions for those high in sensation seeking and impulsivity designed to decrease problematic alcohol use in adolescents (Conrod, Castellanos, & Mackie, 2008). The findings are mixed, with those selected for the sensation seeking intervention groups showing slower increases in binge drinking at 6 and 12 month follow-ups. These interventions showed lower efficacy at longer-term follow up and no significant differences from the control group for the impulsivity condition (Conrod, Castellanos, & Mackie, 2008; Conrod, Castellanos-Ryan, & Mackie, 2011). These alcohol-based interventions, however, show promise for the utility of personality-tailored intervention and prevention efforts. Decreasing the rates of sexual assault perpetration for even 6–12 months could mean significantly fewer victims, which could have tremendous public health implications. Perhaps already validated alcohol-based personality interventions could be augmented to include specific modules on the effects of impulsivity and sensation seeking personalities on perpetration of unwanted sexual advances and sexual coercion. These in-person interventions could also be adapted into online-based prevention efforts customized to student personality profiles and required of students before matriculation to college.

Limitations

These novel findings should be interpreted in light of several limitations. First, all reports of perpetration of unwanted sexual experiences were self-reported for the past three months at each wave, which may not accurately represent frequency of perpetration as accurately as if all months had been examined across the six years of data collection. Second, there was some overlap across categories of perpetration as there were some individuals who perpetrated both sexual coercion and unwanted sexual advances. Third, alcohol and personality were measured the summer before matriculation to college, which may not accurately represent their personality and alcohol use throughout the 10 waves of data collection. It has been shown that both alcohol use and personality change across the college years (Quinn, Stappenbeck, & Fromme, 2011), such that alcohol use measured at other points during the study may have had differential effects on perpetration of unwanted sexual experiences. Yet, numerous studies have found that precollege measures are strongly predictive of behavioral outcomes throughout college (e.g., Corbin, Iwamoto, & Fromme, 2011; Stappenbeck, Quinn, Wetherill, & Fromme, 2010; Sher & Rutledge, 2007) and intervening prior to entry into college may be a key opportunity to decrease alcohol's influence on perpetration of unwanted sexual advances. Fourth, the sample was primarily White, had relatively high family incomes, and only included college students, thus may not generalize to other populations. Fifth, there was significant attrition across the 10 waves of data collection, which may influence the representativeness of the sample. Despite these limitations, the large sample size and longitudinal nature of this study allow adequate power to detect meaningful effects and provide important, unique contributions to the literature on risk factors for sexual coercion perpetration. Furthermore, although our sample was comprised of only college students, it was ethnically diverse and encompassed participants of diverse sexual orientations. Additional research is necessary to determine rates of perpetration of unwanted sexual experiences among sexual minority college students relative to heterosexual college students. There is some evidence for differences in trajectories of intimate partner violence between sexual minority and heterosexual college students (Martin-Storey & Fromme, 2016), which may extend to perpetration of unwanted sexual experiences.

Conclusions

The present study emphasized sensation seeking and impulsivity as unique risk factors for perpetration of one instance of unwanted sexual advances and multiple instances of perpetration across college, respectively. Moreover, our analyses indicated that when accounting for personality, higher quantities of drinking contribute to increased risk for one-time perpetration of unwanted sexual advances. Our findings underscore the importance of providing tailored prevention and intervention modules to college men to stress protective behavioral strategies to decrease risk for one-time perpetration of unwanted sexual advances. Conversely, repeat perpetrators may benefit from interventions emphasizing impulse control strategies that could decrease the incidence of sexual coercion on college campuses. Overall, our findings emphasized the differential influence of impulsivity, sensation seeking, and alcohol use on perpetration of distinct types and frequencies of unwanted sexual acts.

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Table 1.

Participant Descriptives at Wave 1

	Overall		Non-Perpetrators		One-Time Unwanted Advances		Multi-Time Unwanted Advances		One-Time Sexual Coercion		Multi-Time Sexual Coercion	
	N = 901		N = 684		N = 70		N = 139		N = 60		N = 35	
% White	55%		57%		64%		42%		57%		29%	
% Black	3%		3%		1%		4%		3%		6%	
% Hispanic	14%		14%		16%		15%		20%		14%	
% Asian	19%		18%		10%		25%		18%		40%	
% Other/Multiethnic	6%		5%		7%		9%		8%		3%	
% Family income > \$50,000	70%		70%		73%		70%		65%		71%	
	Range	M	SD	M	SD	M	M	SD	M	SD	M	SD
Weekly drinking frequency	0–7	0.84	1.33	0.72	1.24	1.17	1.24	1.56	1.31	1.63	1.53	2.03
Weekly drinking quantity	0–18	1.52	2.56	1.31	2.42	2.44	2.16	2.79	2.54	3.17	1.71	2.20
Sensation Seeking	0–11	5.97	2.59	5.73	2.52	6.84	6.72	2.58	6.73	2.69	7.23	2.06
Impulsivity	0–8	2.39	2.07	2.21	2.01	2.64	3.10	2.22	2.89	2.15	4.07	2.32

Note: All variables were assessed the summer before matriculation to college.

Table 2.**Predictors of Perpetration of Unwanted Sexual Advances during Emerging Adulthood**

Measure	One-Time Unwanted Sexual Advances		Multi-Time Unwanted Sexual Advances	
	<i>OR</i>	<i>95% CI</i>	<i>OR</i>	<i>95% CI</i>
Asian	1.54	0.65–3.66	0.47 **	0.27–0.82
Latino	1.14	0.51–2.57	0.58	0.30–1.13
Other	1.29	0.47–3.53	0.49 *	0.25–0.96
Family income	0.96	0.85–1.09	1.12 *	1.01–1.25
Weekly drinking frequency	1.06	0.84–1.36	1.12	0.93–1.36
Weekly drinking quantity	1.12 *	1.00–1.26	1.06	0.96–1.18
Sensation Seeking	1.16 *	1.01–1.31	1.07	0.97–1.17
Impulsivity	0.98	0.85–1.13	1.16 *	1.04–1.29

Note:

*
p<.05

**
p<.01.

Reference group for ethnicity is White. Reference group for the outcome variables is participants who reported neither unwanted sexual advances nor sexual coercion perpetration. Unwanted sexual advances variables were collapsed across waves 2–10. Ethnicity was categorical, whereas all other variables were continuous.

Table 3.**Predictors of Sexual Coercion Perpetration during Emerging Adulthood**

Measure	One-Time Sexual Coercion		Multi-Time Sexual Coercion	
	<i>OR</i>	<i>95% CI</i>	<i>OR</i>	<i>95% CI</i>
Asian	0.71	0.30–1.70	0.24**	0.09–0.65
Latino	0.51	0.21–1.19	0.48	0.14–1.65
Other	0.57	0.22–1.51	0.76	0.15–3.74
Family income	1.02	0.88–1.17	1.11	0.92–1.34
Weekly drinking frequency	1.07	0.81–1.40	1.33	0.97–1.81
Weekly drinking quantity	1.13	0.99–1.28	0.95	0.77–1.18
Sensation Seeking	1.06	0.92–1.21	1.15	0.94–1.41
Impulsivity	1.11	0.95–1.29	1.36**	1.12–1.67

Note:

**
p<.01.

Reference group for ethnicity is White. Reference group for the outcome variables is participants who reported neither unwanted sexual advances nor sexual coercion perpetration. Sexual coercion variables were collapsed across waves 2–10. Ethnicity was categorical, whereas all other variables were continuous.