

**Preference for Intoxication in Consensual Sexual Encounters:  
An Addendum to the Summary of the Grinnell College  
Sexual Conduct: Culture and Respect Survey Report**  
Elaina Notman '16  
Grinnell College

Author's note: This document represents the results of a Mentored Advanced Project completed during the summer and fall of 2015 by Elaina (Jen-Ai) Notman under the direction of Professor Christopher A. Ralston (Psychology).

Report submitted to the Grinnell College community on December 18, 2015.

Preference for Intoxication in Consensual Sexual Encounters: An Addendum to the Summary of the Grinnell College Sexual Conduct: Culture and Respect Survey Report

The *Sexual Conduct: Culture & Respect Survey* was administered in the springs of 2013 and 2015 to students at Grinnell College. This survey focused on five core areas of misconduct: intimate partner abuse, stalking, unwanted sexual communication, unwanted sexual touching and sexual assault. Additionally, the survey assessed attitudes toward consent, endorsement of rape myth attitudes, perceptions of the sexual misconduct conduct process at Grinnell College, and several variables related to engagement in active bystander behavior. A report of the findings was submitted to the College community on November 8, 2015. This addendum was created to report the results of a section of the survey not included in that initial report. Specifically, this subsequent report focuses on student perceptions and personal beliefs attached to the use of alcohol and other drugs in sexual encounters, as well as self-reported rates of sober and intoxicated sexual encounters.

### **PERSONAL VERSUS PERCEIVED USE OF INTOXICANTS TO LOWER SEXUAL INHIBITIONS**

On the 2015 version of the survey, participants were asked to respond to questions related to their personal use their perception of other Grinnell College students' use of drugs and alcohol to lower their sexual inhibitions. The first question was worded, "I use alcohol or other drugs to lower my sexual inhibitions," and the second stated, "The typical Grinnell College student uses alcohol or other drugs to lower their own sexual inhibitions." Response options included the following: "Not Applicable," "Never," "Rarely," "Sometimes," "Often," and "Always."

A total of 849 participants responded to both questions, but only 694 participants responded with something other than "Not Applicable" to both questions. Only those 694 were used for comparative analyses.

A factorial analysis of variance was employed to determine if certain student groups were more likely to use alcohol or other drugs to lower sexual inhibition. In that analysis, the variable representing personal use was entered as the dependent variable with several demographic variables serving as fixed factors. Those included academic year, gender identity (trans-inclusive binary), sexual orientation (non-heterosexual vs. heterosexual), and race or ethnic background (domestic students of color, international students, and domestic white or Caucasian). Previous experience as the victim of sexual misconduct also was added as a fixed factor.

A single statistically significant main effect emerged for academic year ( $F(3,558) = 3.90, p = .009, \eta_p^2 = .02$ ). Post-hoc analysis using the Least Squared Difference test revealed that first-year participants were significantly less likely to use alcohol or other drugs to lower sexual inhibitions than second- ( $p = .01$ ) and fourth- or fifth-year participants ( $p = .02$ ) and marginally less likely than third-year participants ( $p = .08$ ). No other differences were observed across academic years. Further, no significant interactions were observed among any other variables.

Personal use and perceptions of the typical Grinnell College student's use of alcohol and other drugs to lower sexual inhibitions correlated significantly and moderately,  $r_s = .41, p < .001$ . However, while reported personal use of alcohol and other drug to lower inhibitions was roughly equivalent to a response of "Rarely" ( $M = 1.08, SD = 1.01$ ), perceived use by others was roughly equivalent to a response between "Sometimes" and "Often" ( $M = 2.28, SD = 0.77$ ). The difference in reported personal and perceived use of alcohol and other drugs to lower sexual inhibitions use was significantly different,  $t(693) = -32.13, p < .001$ .

The discrepancy between personal use and perceptions of others' use is displayed in Figure 1. The participants' personal responses followed a descending pattern of endorsement. Almost 40% of the participants claimed that they never used alcohol or other drugs to lower inhibitions, while only 1% said they always participated in this behavior. On the other hand, when participants were asked about a "typical Grinnell College student" use, their answers were quite different. The pattern for these responses followed more of a normal distribution, with the highest responses centered on sometimes and often. Though correlated, this pattern discrepancy may reflect a widespread misperception of how other Grinnell College students use alcohol and other drugs for sexual purposes.

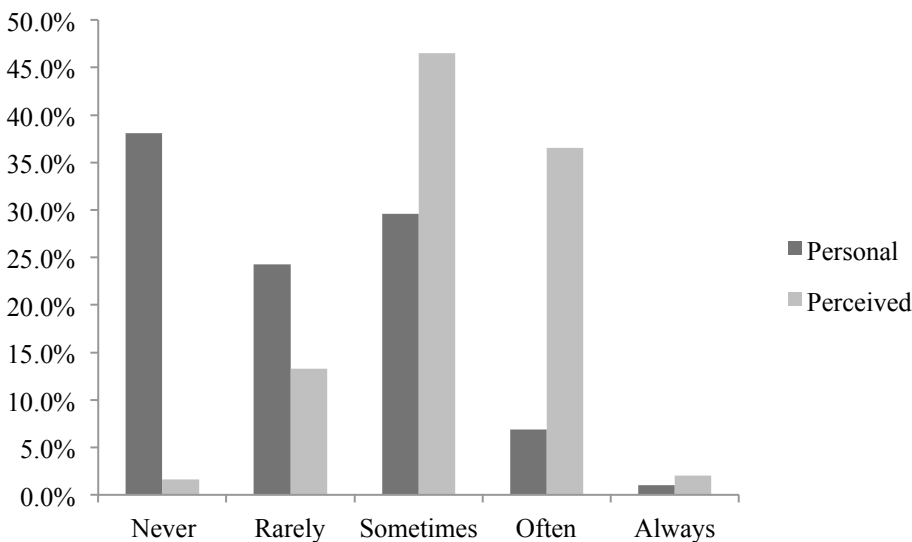
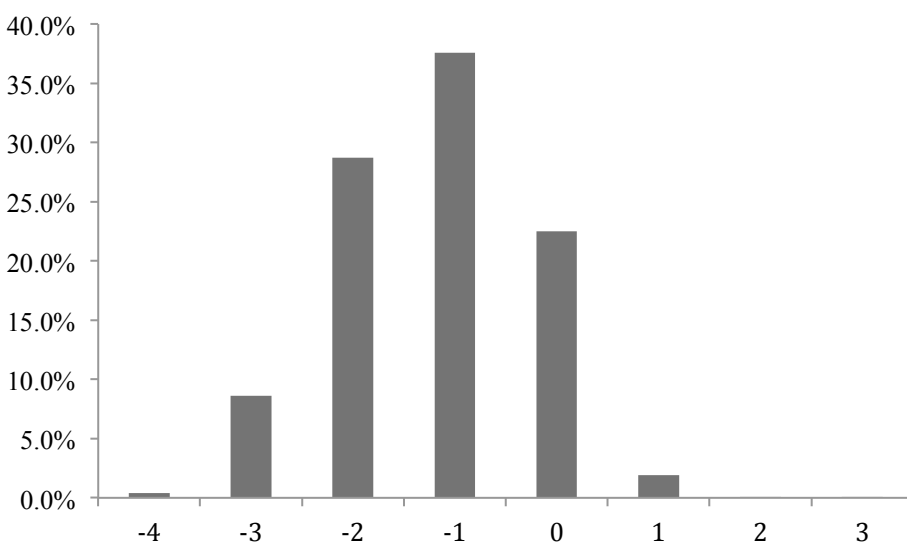


Figure 1. The distribution of reported personal and perceived use of alcohol and other drugs to lower sexual inhibitions.

A discrepancy index was created by subtracting perceived use of alcohol and other drugs by the typical Grinnell College student from actual participant use. Values could range from -4 to +4 with negative values signifying a participant's perceptions of others' use as greater than their own use. A value of zero signifies that a participant's actual use and the perceived use of others is identical, and positive values represent greater personal use of alcohol and other drugs to lower sexual inhibitions than the typical Grinnell College student.

A frequency distribution of this discrepancy index is provided in Figure 2. Scores on this index ranged from -4 to +3 with a median of -1 ( $M = -1.2, SD = 0.98$ ). This signifies that the majority

of participants perceived the typical Grinnell College student uses alcohol and other drugs to lower sexual inhibitions more often than they do personally.



*Figure 2.* Distribution of the discrepancy between reported perceived and personal use of alcohol and other drugs to lower sexual inhibitions. Negative values indicate the perception that others use alcohol and other drugs to lower sexual inhibitions at a greater rate than personal use for that same purpose.

To determine if the discrepancy between personal use and perceptions of others' use of alcohol and other drugs to lower sexual inhibitions was more or less prevalent for some student subgroups, a factorial analysis of variance was employed with fixed factors representing academic year, gender identity (trans-inclusive binary), sexual orientation (non-heterosexual vs. heterosexual), race or ethnic background (domestic students of color, international students, and domestic white or Caucasian) and previous experience as the victim of sexual misconduct. No main effects or interactions were statistically significant. This finding suggests that the discrepancy between personal and perceived use of alcohol or other drugs to lower sexual inhibitions was universal across student groups.

Finally, the three variables representing personal use, perceptions of the typical Grinnell College student's use, and the discrepancy between those two items were correlated with the endorsement of five rape myth attitudes subscales and the rape myth attitudes total score<sup>1</sup>. Briefly, the five subscales represented False Reporting (i.e., the belief that most reports of rape are false and due to revenge or regret after consensual sex), Not Rape Unless Violent (i.e., the belief that in the absence of overt force, violence, injury, or forceful resistance, nonconsensual sex cannot be considered rape), Not Intentional/Overactive Sex Drive (i.e., the belief that perpetrators of rape could not be held accountable because the sexual behavior was often unintentional, owing to the perpetrator being intoxicated or having an overactive sex drive),

<sup>1</sup> See *Summary of the Grinnell College Sexual Conduct: Culture and Respect Survey Report* for the description the Illinois Rape Myth Acceptance scale and the procedures used to derive the five subscales.

Victim Blame (i.e., the belief that victims' behaviors were ultimately responsible for subsequent rapes), and Intoxicated Sex Is Not Rape (i.e., the belief that intoxication is a legitimate excuse for rape). None of the three variables correlated significantly with any of the five rape myth attitudes subscales or the rape myth attitude total score.

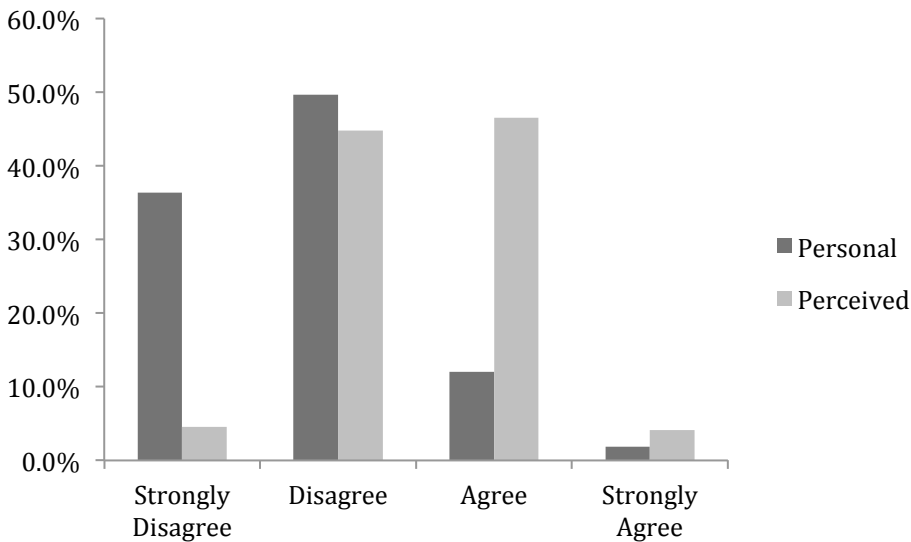
### **PERSONAL VERSUS PERCEIVED PREFERENCE FOR INTOXICATION DURING SEXUAL ENCOUNTERS**

On the 2015 version of the survey, participants were asked to respond to a question about their personal preference for intoxication during sexual contact and a parallel question about their perception of other Grinnell College students' preference for intoxication. The first question was worded, "I prefer to be intoxicated if I'm going to have sexual contact with someone else," and the second stated, "The typical Grinnell College student prefers to be intoxicated if they are going to have sexual contact with someone else." Response options included "Strongly Disagree," "Disagree," "Agree," and "Strongly Agree." A total of 775 participants responded to both questions.

A factorial analysis of variance was employed to determine if certain student groups were more likely to prefer bring intoxicated during sexual encounters. In that analysis, the variable representing personal preference for intoxication was entered as the dependent variable with several demographic variables servings as fixed factors. Those included academic year, gender identity (trans-inclusive binary), sexual orientation (non-heterosexual vs. heterosexual), race or ethnic background (domestic students of color, international students, and domestic white or Caucasian) and previous experience as the victim of sexual misconduct. No statistically significant main effects or interactions emerged, signaling similarity in personal preferences for intoxicated sexual interactions across student groups.

Participant's personal preference and the perception of the typical Grinnell College student's preference for intoxicated sex correlated significantly and positively ( $r_s = .19, p < .001$ ), though the effect size was small ( $r_s^2 = .04$ ). Additionally, while the average level of agreement for personal preference for intoxicated sexual encounters was between "Strongly Disagree" and "Disagree" ( $M = 1.80, SD = 0.72$ ), the perception of other college students' preference for intoxication was between "Disagree" and "Agree" ( $M = 2.49, SD = 0.67$ ). The difference in personal agreement and perceived agreement by others was significantly different,  $t(774) = -22.40, p < .001$ .

The discrepancy between participants reported preference for intoxication during sexual encounters and their perceptions of the typical Grinnell College student's preferences are illustrated in Figure 3. In the context of this question, participants most often responded with "Strongly Disagree" or "Disagree" for personal preference, whereas participants most often perceived others to either "Disagree" or "Agree" with the statement about preference for intoxication during sexual encounters.

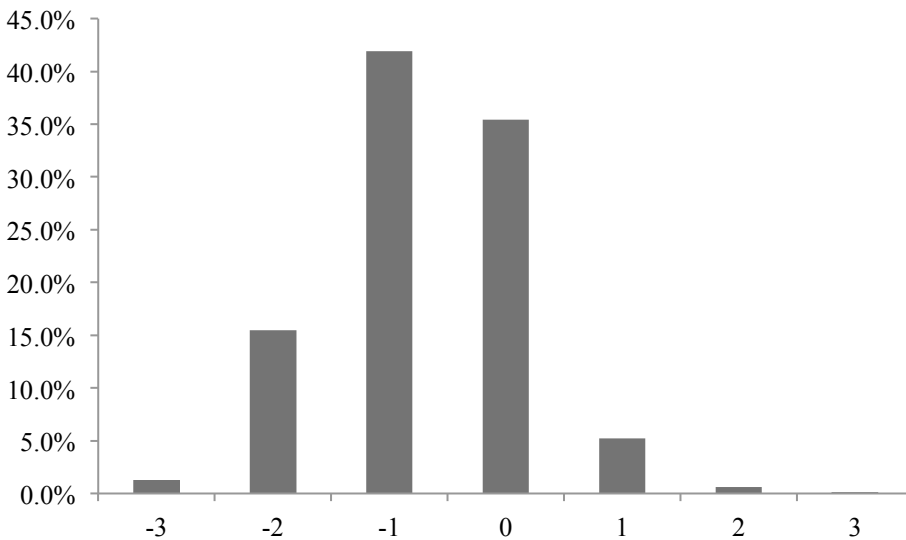


*Figure 3.* The distribution of reported personal and perceived preference toward being intoxicated during sexual encounters.

A discrepancy index was created by subtracting the perceived preference of the typical Grinnell College student for intoxicated sex from the individual participant's personal preference. Values could range from -3 to +3 with negative values signifying participants' perceptions that others prefer intoxicated sex more than they prefer intoxicated sex. A value of zero signifies that personal and perceived preferences are identical, and positive values represent greater personal preference for intoxicated sex than the typical Grinnell College student.

A frequency distribution of this discrepancy index is provided in Figure 4. Scores on this index ranged from -3 to +3 with a median of -1 ( $M = -0.70$ ,  $SD = 0.87$ ). This signifies that the majority of participants perceived the typical Grinnell College student prefer intoxicated sex more than they do personally.

To determine if the discrepancy between personal preference and perceptions of others' preference for intoxicated sex was more or less prevalent for some student groups, a factorial analysis of variance was employed with fixed factors representing academic year, gender identity (trans-inclusive binary), sexual orientation (non-heterosexual vs. heterosexual), race or ethnic background (domestic students of color, international students, and domestic white or Caucasian) and previous experience as the victim of sexual misconduct. No main effects or interactions were statistically significant. This finding suggests that the discrepancy between personal and perceived preference for intoxicated sex was similar across student groups.



*Figure 4.* Distribution of the discrepancy between reported perceived and personal preference for intoxicated sexual encounters. Negative values indicate the perception that others prefer intoxicated sexual encounters more than a participant's personal preference.

The three variables representing personal preference for intoxicated sexual encounters, perceptions of the typical Grinnell College student's preference for intoxicated sex, and the discrepancy between those two items were correlated with the endorsement of five rape myth attitudes subscales and the rape myth attitudes total score. None of the three variables correlated significantly with any of the five rape myth attitudes subscales or the rape myth attitude total score.

Finally, the three variables representing the use of alcohol and other drugs to decrease sexual inhibitions were correlated with three variables representing preference for intoxicated sexual encounters. Perhaps unsurprisingly, personal use of alcohol or other drugs to lower sexual inhibitions was significantly and positively correlated with preference for intoxication during sexual encounters ( $r_s = .52, p < .001$ ). Similarly, perceptions of others' use to lower inhibitions correlated positively and significantly with perceptions of others' preference for intoxicated sex ( $r_s = .46, p < .001$ ), and the two discrepancy indices also correlated positively and significantly ( $r_s = .52, p < .001$ ).

Taken as a whole, these findings suggest a disconnection between how students' perceive other students' use of and preference for intoxicants and how use and prefer intoxication during sexual encounters. Therefore, in regard to social norming on Grinnell College campus, this data has the potential to be utilized as a tool to reconcile the misconception of both the use of alcohol and the preference for alcohol in sexual interactions.

## **SOBER SEX**

In both survey years, participants were asked how many sexual encounters they had within the past month and for how many of those encounters they were sober. Participants were able to list the exact number up to 13, and then were given the option to choose "14 or more." A total of

1393 participants responded to the question about any number of sexual encounters (554 in 2013 and 839 in 2015). However fewer ( $n = 1051$ ) responded to the question about sober sexual encounters (294 in 2013 and 757 in 2015).

For the first analysis, sexual encounters were collapsed into a dichotomous variable comparing those who had at least one sexual encounter in the previous month against those who had not had a sexual encounter. As observed in Table 1, there was a significant increase from 2013 to 2015 in the proportion of participants reporting having one or more sexual encounters ( $\chi^2(1, N = 1393) = 9.34, p = .002$ ).

Table 1

*Percentage of participants who were sexually active in the last month versus those who were not across survey year.*

	2013	2015
No sexual encounters	46.8%	38.5%
One or more sexual encounters	53.2%	61.5%

The mean and median numbers of sexual encounters were calculated for participants in both survey years. In 2013, the mean amount of monthly sexual encounters was 3.60 ( $SD = 4.79$ ) and the median was 1.00. The mean number of sexual encounters in 2015 ( $M = 4.19, SD = 5.06$ ) was significantly higher than the mean observed from participants in 2013 ( $t(1228.73) = 2.20, p = .03$ ), and the median in 2015 was 2.00. Therefore, not only were more participants having sex in 2015 than in 2013 but also the quantity of sexual encounters increased across survey years.

For those participants who reported at least one sexual encounter within the past month, a ratio was calculated for the number of sober sexual encounters to the total number of sexual encounters. The mean sober sex ratio in 2013 was 0.60 ( $SD = 0.40$ ) with a median of 0.79. In 2015, the mean sober sex ratio was 0.65 ( $SD = 0.37$ ) with a median ratio of 0.73.

Because both years' distributions of ratios severely violated the normality assumptions underlying parametric tests of means, the distributions were collapsed and treated non-parametrically. Table 2 presents the bins of the collapsed sober sex ratio variable and the corresponding percentages of participants who fell within those bins across survey year. As observed there, the rates in each bin across survey year were independent ( $\chi^2(1, N = 808) = 43.86, p < .001$ ). Descriptively, a greater proportion of participants in 2015 than in 2013 were sober for every sexual encounter in the past month, while a greater proportion of participants in 2013 than in 2015 were never sober. Despite that observation, approximately half of participants who had at least one sexual encounter in the previous month were sober for all or nearly all encounters across both survey years. Taken together with previous findings, even though there is a significant increase in the proportion of participants having sex and the frequency of sexual encounters from 2013 to 2015, this increase was coupled with an increase in sober sexual encounters.



Table 2

*Percent of sober sexual encounters by survey year.*

Percent of Encounters Sober	2013	2015
100%	27.9%	36.2%
75-99%	25.9%	13.8%
50-74%	9.5%	22.4%
25-49%	9.5%	9.5%
1-24%	3.4%	1.8%
0%	23.8%	16.3%

*Demographics and Sexual Misconduct Experience*

The proportion of sober sexual encounters was not consistent across academic years and survey administration (See Table 3). Specifically, a marginally significant chi-square value was observed for the comparison of first-year participants across survey years ( $\chi^2(3, N = 170) = 7.47, p = .06$ ). This result is likely driven, at least in part, by the greater proportion of first-year participants in 2015 that reported being sober for 100% of sexual encounters than in 2013. Additionally, a significant chi-square value was observed for the comparison of sober sex across participants of different academic years during the 2015 administration only ( $\chi^2(9, N = 504) = 17.80, p = .04$ ). The reason for this finding is less straightforward, but it is possibly due to the greater proportions of first-year participants, relative to older participants, who either were sober for 100% of sexual encounters or were intoxicated for 100% of encounters. No other chi-square values were significant.

Table 3

*Percent of sober sexual encounters by academic year and survey year.*

Percent of Encounters Sober	2013				2015			
	1st Yr	2nd Yr	3rd Yr	4th/5th Yr	1st Yr	2nd Yr	3rd Yr	4th/5th Yr
100%	26.6%	31.4%	25.3%	28.6%	47.2%	34.7%	29.2%	35.1%
50%-99%	34.4%	36.0%	38.7%	33.3%	21.7%	38.7%	45.0%	39.0%
1-49%	12.5%	11.6%	13.3%	12.7%	10.4%	13.7%	10.8%	9.7%
0%	26.6%	20.9%	22.7%	25.4%	20.8%	12.9%	15.0%	16.2%

No significant chi-square statistics were observed for participants of different gender identities across survey years. However, significant differences in rates of sober sex emerged across survey year for participants of different sexual orientations (see Table 4). In both 2013 ( $\chi^2(3, N = 288) = 8.43, p = .04$ ) and 2015 ( $\chi^2(3, N = 499) = 10.52, p = .02$ ) the rates of sober sex were significantly different between non-heterosexual and heterosexual participants. However, the pattern of these differences does not appear consistent across survey year, which is partially explained by the significant difference in rates for non-heterosexual participants across survey year ( $\chi^2(3, N = 202) = 18.62, p < .001$ ). Seemingly, a greater proportion of non-heterosexual

participants in 2015 than in 2013 were having sober sex, while the rates of sober sex for heterosexual participants remained stable across survey year.

Table 4

*Percent of sober sexual encounters by sexual orientation year and survey year.*

Percent of Encounters	2013		2015	
	Non-Heterosexual	Heterosexual	Non-Heterosexual	Heterosexual
100%	22.7%	30.0%	47.2%	32.3%
50%-99%	26.7%	37.6%	29.1%	39.0%
1-49%	20.0%	10.8%	11.8%	11.0%
0%	30.7%	21.6%	11.8%	17.7%

Because there were only 30 international student participants who responded to both questions needed to calculate the sober sex ratio, they were removed from the analysis examining the stability of sober sex ratios across racial or ethnic background groups. For that analysis, no significant chi-square statistics emerged for the comparison of sober sex ratios between domestic students of color and domestic white or Caucasian participants for either survey year (see Table 5). However, significant differences in sober sex ratios emerged for domestic students of color across survey years ( $\chi^2(3, N = 158) = 9.67, p = .02$ ). This finding seems driven by a greater proportion of domestic students of color having more sober sex in 2015 than in 2013.

Table 5

*Percent of sober sexual encounters by racial or ethnic background and survey year.*

Percent of Encounters	2013		2015	
	DSC	DWC	DSC	DWC
100%	22.7%	30.7%	40.4%	34.9%
50%-99%	29.5%	36.7%	36.0%	36.8%
1-49%	13.6%	11.9%	8.8%	11.9%
0%	34.1%	20.6%	14.9%	16.4%

*Note.* DSC = Domestic students of color, DWC = Domestic white or Caucasian.

Experiences of sexual misconduct as a victim were assessed during both survey administrations, but experiences of sexual misconduct since entering college were assessed only during the 2015 administration. For the analyses of the relation of sexual misconduct experiences as a victim and sober sex ratio, we chose to use only the data from 2015 to allow for the inclusion of participant victimizations since entering college. The sober sex ratios by sexual misconduct experience are presented in Table 6. A significant chi-square value emerged for sober sex ratios across victims of any type of sexual misconduct (intimate partner abuse, stalking, unwanted sexual communication, unwanted sexual touching, and attempted or completed sexual assault) ( $\chi^2(3, N = 514) = 10.78, p = .01$ ). Descriptively, those participants who had not experienced sexual misconduct since entering college reported having proportionally more sober sex than those who had experienced sexual misconduct. However, no significant difference in sober sex ratios emerged when the sexual misconduct experience was limited to physical forms (unwanted sexual touching and attempted or completed sexual assault).

Table 6

*Percent of sober sexual encounters by sexual misconduct experience.*

Percent of Encounters	Any SME		Any PSME		
	Sober	No	Yes	No	Yes
100%		42.0%	31.0%	39.2%	29.3%
50%-99%		32.9%	39.1%	35.9%	36.9%
1-49%		7.8%	14.4%	10.4%	13.4%
0%		17.3%	15.5%	14.6%	20.4%

*Note.* SME = Sexual Misconduct Experience, PSME = Physical Sexual Misconduct Experience.

## SUMMARY AND CONCLUSION

In summary, the proportions of people engaging in sober sex changed significantly between 2013 and 2015 with greater numbers engaging in proportionally greater sober sexual encounters. In addition, while proportionally more people indicated they preferred not to use alcohol and other drugs to decrease sexual inhibitions or to have sexual contact with others, participants generally perceived the typical Grinnell College student prefer the use intoxicating substances during sex at rates greater than their own. This discrepancy between personal and perceived behaviors and around alcohol and other drug use lends itself well to education around social norms. In addition to changing perceptions of the “typical college student,” such social norming might also free more students to engage in less risky types of sex.

The number of participants in 2015 who claimed to have had at least one sexual in the past month has significantly increased since 2013. Participants in 2015 also were having more sexual encounters than in 2013. Most importantly, it appeared that participants increased the proportion of sexual encounters where they were sober across survey administrations. It is impossible to explain the cause of this finding because of this study’s design, though potentially the increased proportion of sober sex reflects the outcome of harm reduction strategies put in place since the 2013 survey. Additional investigation of and investment in harm reduction strategies around alcohol and other drugs during sexual encounters seems warranted.