THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF PSYCHOLOGY

DISINHIBITION AND ALCOHOL USE AS PREDICTORS OF RISKY SEXUAL
BEHAVIOR

GABRIELLE SHISHKOFF
SPRING 2014

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree
in Psychology
with honors in Psychology

Reviewed and approved* by the following:

Stephen J. Wilson
Assistant Professor of Psychology
Thesis Supervisor

Kenneth N. Levy
Associate Professor of Psychology
Honors Adviser

* Signatures are on file in the Schreyer Honors College.

ABSTRACT

Sexual risk-taking has many potential negative ramifications, including increased risk for sexually transmitted infections, unplanned pregnancy, as well as psychological consequences, making it important to study predictors of this behavior. Additionally, university students are known to have high rates of risky sexual behavior (RSB), making them an important demographic to study. Previous literature has shown that a relationship exists between personality, alcohol use, and risky sexual behavior, but the research has some discrepancy about the exact nature of the relationship. While some research has suggested that personality is a cause of RSB and alcohol use, other studies suggest that alcohol use is the true predictor of RSB and any relationship between personality and RSB is due to the fact that personality and alcohol use are related. The current study looks to fill in a gap in the previous research by determining if personality accounts for increased RSB beyond the effects of increased alcohol use. The hypothesis was that personality would predict RSB beyond the effects of alcohol use, in that disinhibited individuals would show higher RSB than inhibited individuals, regardless of alcohol use. An interaction between alcohol use and personality was also predicted, in that inhibited individuals would show a stronger relationship between alcohol use and RSB, whereas disinhibited individuals would be high in RSB regardless of alcohol use. The current study also examined gender differences in RSB at the subfactor level, an analysis not commonly done in previous research. A better understanding of how gender predicts RSB will also be useful in targeting interventions and preventing negative health consequences.

While the original hypothesis was not supported, the research did contribute to an understanding of factors contributing to RSB, and an interesting gender difference was found with one subfactor of RSB.

TABLE OF CONTENTS

LIST OF TABLES

ACKNOWLEDGEMENTS

This thesis would not have been possible without the guidance and support of Ross MacLean. It also would not have been possible without the leadership and assistance of Doctor Stephen Wilson. I am thankful for the participants, who took the time to complete the surveys, and the other undergraduate researchers in the Wilson lab for their research assistance. Finally I would like to thank Doctor Kenneth Levy, for being the second reader of my thesis and my honors advisor throughout this experience.

Chapter 1

Introduction

Risky sexual behavior (RSB) is defined as behaviors such as having multiple uncommitted partners, engaging in sex after consuming alcohol or drugs, and failure to use a condom or other contraceptive method (Cook & Clark, 2005; Birthrong & Latzman, 2013). These behaviors can have negative heath consequences, including unplanned pregnancy, contracting a sexually transmitted infection, and other physical and psychological damage (e.g. Cook & Clark, 2005). Due to the negative health impact of these behaviors, research into predictors of sexual risk-taking has been popular in recent years, and several such factors have been identified. Research on sexual risk-taking has repeatedly shown that risky sexual behavior is broadly related to alcohol use (e.g. Halpern-Felsher, Millstein, & Ellen, 1996; Cooper, 2002; Hutton, McCaul, Santora, & Erbelding, 2008) as well as the personality trait impulsivity (e.g. Kahn, Kaplowitz, Goodman, & Emans, 2002; Birthrong & Latzman, 2013).

Understanding risk factors for risky sexual behavior is important for both assessing the effectiveness of past public health efforts, and in predicting at-risk individuals who could potentially benefit the most from targeted intervention. College students are a particularly important demographic to study as social norms at universities tend to accept or even promote risky sexual behavior. As such, college students typically exhibit higher rates of risky sexual behavior than the general public (LaBrie & Earleywine, 2000), and are more susceptible to ramifications associated with risky sexual behavior. For the above reasons, it is important to address risky sexual behavior within this demographic, especially considering that the relatively young age of college students may make the consequences even more detrimental. Unplanned

pregnancy, for example, could be especially problematic for university students because it could impact their educational attainment, and they may not have the financial resources to support a child.

Disinhibition, most simply, is the construct that describes behaving in an undercontrolled manner; at the opposite end of the spectrum is constraint (Latzman, Vaidya, Clark, & Watson, 2011). Disinhibition is considered to be a multi-faceted trait, and is made up of 3 facets: impulsivity, irresponsibility, and distractibility (Krueger, Derringer, Markon, Watson, & Skodol, 2013). The relationship between aspects of disinhibition (e.g. impulsivity) and RSB has been studied by many researchers with the majority of these studies demonstrating a positive relationship between uninhibited individuals and risky sexual behavior. More specifically, research on adolescents found that individuals high in impulsivity overall or impulsive decision-making showed more risky sexual behavior overall (Kahn, Kaplowitz, Goodman, & Emans, 2002; Donohew, Zimmerman, Cupp, Novak, Colon, & Abell, 2000). A study on a slightly older sample, university students, found that impulsivity was positively related to overall RSB as well as all subfactors of RSB, which include unprotected sex, impulsive sex acts, sex under the influence, and other high-risk behaviors (Birthrong & Latzman, 2013). A study by Deckman and DeWall (2011) expanded prior research by determining impulsivity, specifically negative urgency and sensation seeking, was predictive of RSB. The current study however focuses on the higher-order trait of disinhibition, which includes but is not limited to impulsivity (Latzman, Vaidya, Clark, & Watson, 2011; Krueger, Derringer, Markon, Watson, Skodol, 2013).

Past research has consistently found a relationship between the personality trait disinhibition and increased alcohol use, though the exact nature of the relationship is unclear. Some researchers hypothesize it to be causal, with a disinhibited personality leading to increased alcohol consumption, while others believe a third factor could be driving the relationship. Some research suggests that impulsivity is not directly related to alcohol abuse but is instead associated

with psychopathology that is found in certain types of alcohol abusers (Whiteside & Lynam, 2009). This study by Whiteside and Lynam (2009) suggested that it was not disinhibition, but antisocial traits captured within the measurement of disinhibition, that truly predicted alcohol abuse. When antisocial traits were excluded, there was no relationship between disinhibition and alcohol use (Whiteside & Lynam, 2009). Other research has suggested that disinhibition leads to positive alcohol expectancies, which then leads to more alcohol use (McCarthy, Kroll, & Smith, 2001). Whatever the nature of the relationship, past research has consistently indicated that individuals with higher disinhibition are more likely to show increased alcohol use or abuse.

The relationship between alcohol use and RSB has also been a point of interest for many researchers, with most research supporting one of two main theories: that alcohol use and risky sexual behavior occur at the same time, indicating that alcohol consumption leads to more sexual risk-taking; or that some underlying factor (such as personality) leads to both increased alcohol use and increased sexual risk-taking, though the two do not necessarily occur at the same time. Several studies concluded that the relationship between alcohol use and risky sexual behavior was more than simple cause-and-effect and was likely due to other common risk factors, such as thrill-seeking behavior (Temple & Leigh, 1992), though these studies were not conducted on university students which could cause significant differences in results compared to the present study. Studies with these results tend to conclude that individuals who drink more tend to also have more risky sex (Temple & Leigh, 1992). Slightly newer research however has suggested that earlier methodologies may have missed as much as half of the actual behaviors of their participants due to social desirability and subsequent underreporting of certain behaviors, and with an improved methodology this research has found that alcohol use and certain types of risky sexual behavior often co-occur (LaBrie & Earleywine, 2000). This newer research has also indicated a need to examine RSB as five separate facets (risky sex acts, impulsive sexual behaviors, sex with uncommitted partners, risky anal sex acts, and intent to engage in RSB), and

has provided evidence for alcohol affecting only certain types of sexual risk-taking, specifically condom usage. Because it is a point of interest without much prior research, the current study analyzed the relationships of both total RSB and the specific facets of RSB with disinhibition and alcohol use. One problem encountered with synthesizing the literature on sexual risk-taking and alcohol use was the differences in ways of defining RSB. Several studies focused only on condom usage as an indication of sexual risk-taking, while others created their own questionnaires addressing many different behaviors, and still others used the same five-facet model of RSB as the current study. While condom usage is an important factor in many of the negative consequences of risky sexual behavior, it is not the only aspect of RSB; as such the current study looked to expand the literature by using a more comprehensive approach to RSB.

A shortcoming in the existing literature in general is that RSB was analyzed as a single construct or even single behavior. For example, some research focused on the increased occurrence of sexually transmitted diseases with alcohol use (using condom use as a risk factor for STD transmission), or only discussed condom usage as an indicator of RSB (Cook & Clark, 2005; Fergusson & Lynskey, 1996). Other ways used to conceptualize RSB were similarly narrow, focusing on only a few of the possible behaviors such as 'one night stands' and intercourse with unfamiliar partners (Justus, Finn, &Steinmetz, 2000). Though Birthrong and Latzman (2014) used the five-facet model of RSB and analyzed each factor separately, they did not include alcohol use in analysis.

The current study is different from many previous studies in two main ways; it separates RSB into its five separate subfactors for analysis, and it uses disinhibition as the trait for personality analysis. As mentioned earlier, specific subfactors of RSB were investigated because previous literature indicated a need for a more in-depth look at risky sexual behavior, and suggested that while all subfactors tend to correlate with each other, predictors relate differently to the separate factors (LaBrie & Earleywine, 2000). The existing literature has left several

questions unanswered: does alcohol use predict RSB differently based on disinhibition, is disinhibition significant beyond the effects of alcohol use, and are there gender differences in these relationships. It is hypothesized that individuals who consume more alcohol will show more risky sexual behavior, and that this relationship will be moderated by personality in that alcohol use will be a stronger predictor of RSB in individuals low in disinhibition, while those high in disinhibition will show a weaker relationship. This prediction demonstrates an interaction between alcohol use and personality, with the effects of alcohol use varying with disinhibition level, potentially because individuals high in disinhibition will have a high base rate for RSB, regardless of alcohol consumption. Conversely, individuals low in disinhibition will show low measures of RSB without alcohol, but relatively high RSB with alcohol, possibly due to the disinhibiting effect of alcohol. A second hypothesis is that gender will predict RSB, in that women will show lower measures of RSB than men. Furthering this hypothesis, we predict that alcohol use will be a stronger predictor of RSB for women then men, again because men will have a higher base rate.

Chapter 2

Method

2.1 Subjects

The study was conducted at a large public university in Pennsylvania. The subjects were recruited from undergraduate psychology courses and received course credit for their participation. Sign-up was voluntary, as students had their pick of all available studies offered through an online database, and males and females were recruited separately to assure an even gender distribution. Subsequently, there were 165 total participants, 82 males (49.7%) and 83 females (50.3%) and the mean age was 19.15 (SD=1.61). All participants were at least 18. The participants were largely White/Caucasian (72.7%), with smaller percentages of Asian (15.8%), Black/African-American (7.3%), and Hispanic (4.2%). All participants were unmarried. These demographics were all fairly typical for a mid-Atlantic university, though admittedly did not provide the opportunity to make comparisons concerning relationship status, as some previous literature has done.

2.2 Procedure

Participants came into the lab to participate in a validation study of the Balloon Analogue Risk Task (BART), which was run by trained undergraduate assistants and graduate researchers. The students were over 18 and were administered informed consents, which briefly described the overall purpose of the study, described the procedure, and explained the confidential nature of all results. Participants were then instructed on the different versions of the BART, and left alone in the study room to complete the task. Following their completion of the BART, participants were

told that they would be completing a series of questionnaires on a computer that assessed basic

demographics as well as a number of behaviors, including some illegal activities such as

underage drinking. The participants were reassured of the confidentiality of their responses,

including being told that each participant was assigned an identification number upon arrival to

the study, and that no identifying information would be tied to their BART results or

questionnaire responses. Participants were then asked to answer honestly and had the option to

skip questions they preferred not to answer to decrease preferential responding and lying. The

researcher then set up the questionnaire series on a computer using MediaLab and, to increase

comfort and privacy of responses, participants were left alone in the study room to complete the

questionnaires (they could summon a researcher for questions or at completion using a buzzer).

Results from the BART task administration will be reported elsewhere; only responses to

questionnaires are employed for the current study.

2.3 Disinhibition

The Personality Inventory for DSM-5 (PID-5; Krueger, Derringer, Markon, Watson,

Skodol, 2013) is a new measure of maladaptive personality traits that was developed for use in

the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (American Psychiatric

Association, 2013). The PID-5 uses a 4-point Likert scale with the response options: 0 = very

false or often false; 1= sometimes or somewhat false; 2 = sometimes or somewhat true; and 3 =

very true or often true. The full form uses 220 items to analyze 25 maladaptive scales, each being

measured by four to fourteen individual items. Specific combinations of three of these facets can

be combined into five broader trait domains: (1) negative affect versus emotional stability, (2)

detachment versus extraversion, (3) antagonism versus agreeableness, (4) disinhibition versus

conscientiousness, and (5) psychoticism versus lucidity. The disinhibition domain is calculated

using the facet scales of irresponsibility, impulsivity, and distractibility. Sample items from these

three facets are: I follow through on commitments (irresponsibility, reverse scored); I usually do things on impulse without thinking about what might happen as a result (impulsivity); and I have trouble keeping my mind focused on what needs to be done (distractibility). The overall score for disinhibition was calculated by finding the average score for each of the three facets (the raw facet score divided by the number of items contributing to the facet), summing the averages of the facets and then dividing by three to get the average domain score. Higher averages indicated higher levels of disinhibition. When performing the hierarchical regression, the average domain score was entered as the second level variable.

2.4 Alcohol use

Alcohol use and abuse was measured using the Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, de la Fuente, & Grant, 1993), a 10-item questionnaire developed collaboratively by the World Health Organization (WHO) to assess hazardous and harmful alcohol consumption. The questions assess drinking behavior, adverse psychological reactions, alcohol-related problems, and alcohol consumption, and all questions except 2 refer to the preceding 12 months (past year). Internal consistency of the AUDIT is typically high, with alpha coefficients consistently around .80 (Allen, Litten, Fertig, &Babor, 1997). The first eight questions refer to the past year and have five possible answers, which are scored on a 0 to 4 scale, a 4 indicating higher frequency of alcohol use. The two questions that do not refer to the previous year have only three answer choices but are still scored on a 0 to 4 scale as follows: (1) no; (2) yes, but not in the last year; and (4) yes, during the last year. The total AUDIT score is calculated by summing the weights of each answer given, making the overall scores range from 0 to 40. Sample questions included the following: How often during the last year have you found that you were not able to stop drinking once you had started (drinking behavior), How often during the last year have you had a feeling of guilt or remorse after drinking (adverse psychological reactions),

Have you or someone else been injured as a result of your drinking (three answer choices, alcohol-related problems), and how often do you have a drink containing alcohol (alcohol consumption). The total AUDIT score was entered as the third level variable.

2.6 Risky sexual behavior

The dependent variable in the model was risky sexual behavior, which was measured using the Sexual Risk Survey (SRS, Turchik & Garske, 2009), which asks participants to indicate how many times they have engaged in a certain behavior in the preceding 6 months. The SRS is a 23-item questionnaire that investigates a variety of sexual behaviors and can be broken down into 5 subfactors: (1) sexual risk taking with uncommitted partners, (2) risky sex acts, (3) impulsive sexual behaviors, (4) intent to engage in risky sexual behaviors, and (5) risky anal sex acts. The SRS overall has been shown to have high internal consistency (alpha = .88) and high test-retest reliability (alpha = .93, Turchik & Garske, 2009). Sexual risk taking with uncommitted partners was measured by items that addressed risky sexual behaviors that took place with a partner who was unfamiliar or not trusted by the participant, such as: "How many times have you "hooked up" but not had sex with someone you didn't know or didn't know well?" Risky sex acts included behaviors such as having vaginal or oral sex without the use of a condom, for example: "How many times have you given or received fellatio (oral sex on a man) without a condom?" The impulsive sexual behaviors subfactor is composed of items that address unplanned sexual behaviors, such as the following: "How many times have you had an unexpected and unanticipated sexual experience?" Intent to engage in risky sexual behaviors was assessed using items that reflected desire rather than actual behaviors, for example: "How many times have you gone out to bars/parties/social events with the intent of "hooking up" and having sex with someone?" Risky anal sex acts were put into their own subfactor, composed of questions such as: "How many times have you had anal sex without a condom?" The total RSB score was calculated

by summing the answers to all items, and separate facet scores were calculated by summing only the specific items associated with the facet. In the model, the dependent variable was first total RSB, and then each of the five subfactors was also entered separately for analysis.

2.7 Analytic strategy

Because of the nature of the data, which is statistically nonindependent, hierarchical regression was performed to see the additional effect of each new independent variable. The use of multilevel modeling is consistent with the literature on alcohol use, personality, and risky sexual behavior (Deckman & DeWall, 2011; Birthrong & Latzman, 2013). Demographic variables (age, gender, race, and education level) were entered at the first level. Trait disinhibition, measured by the PID-5, was entered at the second level, while participants' AUDIT score was entered at the third level. The levels of these two factors, personality and alcohol use, could have been inverted but it was decided to enter personality first as it was considered likely that alcohol use was accounting for the variation seen at the personality level (i.e. high disinhibition lead to variation in levels of RSB due mostly to increased alcohol use). At the fourth and final level, the interaction between trait disinhibition and alcohol use was entered. For the interaction term, disinhibition and alcohol use scores were mean-centered and multiplied.

Chapter 3

Results

3.1 Relationship between disinhibition and RSB

Bivariate analysis revealed moderate correlation between all factors of RSB and overall RSB score (all r's > .4). There was less consistency in the correlations between aspects of RSB, primarily concerning Risky Anal Sex Acts. Three of the five non-significant correlations between factors of RSB were with Risky Anal Sex Acts (r(df)= .01 with Sex with Uncommon Partners; r(df) = -.03 with Impulsive Sexual Behaviors; r(df) = -.03 with Intent to Engage in RSB), and the other two non-significant correlations involved Risky Sex Acts (r(df) = .04 with Impulsive Sexual Behaviors; r(df) = .02 with Intent to Engage in RSB). It is interesting to note, however, that Risky Sex Acts and Risky Anal Sex Acts were strongly correlated with each other (r(df) = .443, p < .01).

Total RSB was moderately correlated with trait disinhibition (r(df) = .17, p < .05), while the individual factors of RSB showed a wide range of correlations. The two strongest correlations were for Sex with Uncommitted Partners (r(df) = .24, p < .01) and Impulsive Sexual Behaviors (r(df) = .22, p < .01) with disinhibition. Intent to Engage in RSB also had a statistically significant relationship with disinhibition (r(df) = .17, p < .05), while Risky Sex Acts (r(df) = .06) and Risky Anal Sex Acts (r(df) = .03) were uncorrelated with disinhibition.

3.2 Predicting RSB with disinhibition and alcohol use

The first model entered used total RSB as the dependent variable. Demographics were entered at level one of the model, and all variables were found to be statistically insignificant (all

p's > .2). At level two, trait disinhibition was found to be statistically significant (β= .17, *p* =

.03), with higher measures of impulsivity being related to higher measures of RSB. At level three,

alcohol use accounted for all of the variation from step two, plus additional variation (β = .37, *p* <

.001), while trait disinhibition was no longer significant once alcohol use was accounted for (β =

.04, *p* = .6). Alcohol use accounted for an additional 20% increase in variance explained beyond

disinhibition. At level four, the interaction between alcohol use and disinhibition was not

significantly related to overall RSB, while alcohol use remained significant (β = .37, *p* < .001).

Separate analyses were then run with each of the five facets of RSB as the dependent

variable. The Risky Anal Sex Acts facet was not significantly correlated with any of the

independent variables, which was likely a result of low base-rate. Disinhibition was significantly

related to Impulsive Sexual Behavior at level two (β = .21, *p* = .007), but this variation was

accounted for by alcohol use in level three, where alcohol use was found to be strongly

significant (β = .53, *p* = .000). The interaction of alcohol and disinhibition at level four was

nonsignificant.

The Risky Sex Acts facet was not significantly related to demographics, disinhibition, or

alcohol use, a finding that was interesting considering the factor includes sex acts with substance

use. Sex with Uncommitted Partners showed the same trend as Impulsive Sexual Behavior in that

disinhibition was significant at level two (β = .23, *p* = .003), but became insignificant when

alcohol use was accounted for in level three. Alcohol use was again significant (β = .39, *p* <

.001), while the interaction of disinhibition and alcohol use was nonsignificant.

The Intent to Engage in RSB was the only facet that showed definite significance at level

one in demographics, and gender (coded with males as 1 and females as 2) was the significant

factor (β = -.19, *p* = .02). At level two, disinhibition was a significant predictor (β = .16, *p* = .04),

and gender remained significant (β = -.19, *p* = .02). At level three, disinhibition became

insignificant as alcohol accounted for the variation seen at level two (β = .39, p = .000), however

gender still remained significant (β = -.15, p = .04). At level four, the interaction of disinhibition and alcohol was insignificant, while both gender and alcohol use remained significant with approximately the same beta and p-values. Because gender was found to be significant in the hierarchical regression, separate analyses were performed by gender. Essentially, all data from females was eliminated, and the same regression was run for the male data (n = 82) with the small change of eliminating gender from the demographics entered at level one. Significance was only found at level three, where alcohol use was highly significant (β = .38, p = .001). The same analysis was performed using only female data (n = 83), and again significance was found at level three with alcohol use (β = .45, p = .000). This analysis revealed a greater effect size for women than men on alcohol use with alcohol use accounting for approximately 45 percent of variance in women, and only 38 percent in men.

Chapter 4

Discussion

Understanding factors contributing to risky sexual behavior is important in identifying at-risk individuals and targeting interventions. In particular, university students are an important demographic to study because many aspects of risky sexual behavior are the norm and can lead to greater rates of the problems associated with RSB on college campuses (LaBrie & Earleywine, 2000). These problems include sexually transmitted infections, unplanned pregnancy, and other psychological and physiological damage (Cook & Clark, 2005), the consequences of which often persist far beyond individuals' college years. A better understanding of what factors relate to RSB and how such factors relate to one another will allow for more focused interventions moving forward, as well as provide information about the success of recent public health efforts that have targeted RSB.

Prior research has largely focused on RSB as a unitary construct, rather than on individual facets of RSB. However, each of the separate facets of RSB may relate to a different negative ramification (albeit with some overlap), and it is therefore essential to understand the specific effect of disinhibition and alcohol use on each individual facet. Looking at RSB as a single construct may cause research to miss some of the nuances that indicate the ways in which young people engage in RSB.

Though disinhibition appeared to predict all facets of RSB except for Risky Sex Acts and Risky Anal Sex Acts as well as overall RSB, it was revealed that the relationship was actually due to increased alcohol use, which has been shown to be associated with impulsivity, a subfactor contributing to disinhibition (Whiteside & Lyman, 2009). When alcohol use was accounted for,

disinhibition was no longer significant as increased alcohol use accounted for all variation seen with personality, as well as additional variation, proving to be a significant predictor of RSB. Though the relationship between increased alcohol use and RSB has been noted in the literature, there has been some dissension around the nature of the relationship. For instance, some researchers have suggested that alcohol use and RSB are both caused by a third variable, such as personality, citing that the two do not always co-occur (Temple & Leigh, 1992). Other research has contradicted this, stating that alcohol consumption and unsafe sex likely occur at the same time, suggesting that alcohol consumption increases RSB (LaBrie & Earleywine, 2000). The results from this study suggest that the latter is more likely, as alcohol use accounted for all variation found at the personality level.

The most intriguing finding from this study was the lack of significance found between alcohol use and the Risky Sex Acts factor of RSB, a facet which is composed of items that address condom usage as well as alcohol use prior to sexual intimacy. The lack of correlation between alcohol use and a factor that includes sex under the influence of alcohol appears counterintuitive, as it would seem logical that the more alcohol a student consumes, the more likely he or she is to engage in sexual behavior while under the influence, though there are several possible explanations for this anomaly. One possibility is that alcohol use is so prevalent in the sample that individuals consume alcohol yet do not engage in RSB, and there is a problem of high base rate for alcohol consumption.

The lack of correlation between alcohol use and Risky Sex Acts could have one positive implication, and that is concerning condom use (one of the behaviors addressed within Risky Sex Acts). The data suggests that alcohol use does not decrease condom usage, a clear positive, if somewhat surprising, result that indicates that while students may be more likely to have sex when drinking alcohol, they may be engaging in it in a responsible way. Though alcohol may lead to a less inhibited state and therefore to more RSB overall, condom usage appears to be

unaffected, suggesting that public health interventions that have centered about condom usage have been effective. These results also show the importance of a multi-faceted approach to research on RSB, as this effect would have been missed if RSB had been only analyzed as a single factor.

The significance of gender in predicting Intent to Engage in RSB is a relationship that has been found in previous literature (Birthrong & Latzman, 2013; Turchik & Garske, 2009). This finding is consistent with the literature, which has found gender differences primarily in Intent to Engage in RSB (Birthrong & Latzman, 2013; Turchik & Garske, 2009). However, this study expanded upon current research because results showed not only a difference in Intent to Engage in RSB by gender, but also in the effect size of alcohol use. Increased alcohol use accounted for approximately 7 percent more of the variation in women than in men, a significant difference that could be due to societal gender norms. It is a well-known fact that the sexuality of women and men is a double standard, in which women's sexuality is stigmatized while men's is at least accepted and often encouraged (Jackson & Cram, 2003). In the context of heterosexual relationships, this difference in intent does not always equate a difference in actual behavior, as heterosexual men who wish to engage in sexual behavior need a consenting female partner to also engage. The fact that men tend to measure higher on Intent to Engage in RSB yet show no significant difference in actual engagement has been found in previous studies, though the relationship has been attributed to many factors including to inaccurate reporting due to gender expectations, uneven gender distribution in the sample, as well as to actual differences in desire (Eagly, 1987; Birthrong & Latzman, 2013; Turchik & Garske, 2009)

Chapter 5

Conclusion

RSB was found to be related to alcohol use through several facets of RSB, but what was surprising was the lack of relationship between alcohol use and Risky Sex Acts, a construct that includes alcohol use prior to sexual activity. While this is counterintuitive, as one would expect increased alcohol use to be a predictor of having sex under the influence of alcohol, it is possible that in a university setting alcohol use is so prevalent and occurs in so many diverse situations that many individuals consume alcohol and do not engage in sexual activity. Condom usage was another issue addressed with this subfactor, indicating that while alcohol use does predict RSB, it does not predict an individual's use of protection. This is a positive implication, suggesting that public health efforts directed at safe sex have been effective, and condom usage has become the standard.

The main finding of the current study was that personality did not predict RSB, and the relationship between the two was due to increased alcohol use, which proved to be a significant predictor of RSB. This finding has implications for possible interventions, indicating that alcohol use should be a focus rather than personality. This study suggests that the most effective way to reduce RSB is to target individuals with problematic alcohol consumption rather than targeting disinhibited individuals. This is a positive implication for two reasons; first, identifying individuals based on an observable behavior, alcohol consumption, presumably is easier than using an unseen trait such as disinhibition. Second, alcohol use as a behavior is also easier to alter than personality, which is more persistent and inherent. Interventions intending to reduce RSB among young adults should therefore focus on reducing alcohol consumption.

The gender difference found in the predictive power of alcohol use on the subfactor Intent to Engage in RSB is indicative of the double standard between men and women in terms of sexual expectations. There are several possible reasons hypothesized for the difference seen in the relationship, one being that women are discouraged by society from being sexual and men are not, giving men a higher base rate of intent regardless of alcohol consumption. A second proposed explanation is that because of the double standard that exists, women are more likely to use alcohol as an excuse to expect sexual activity, while men are less likely to feel the need for an excuse. Future research is necessary to determine the validity of the gender differences found in this study's data. However, it is an interesting direction for further research to focus, as is the discrepancy between increased Intent to Engage in RSB and actual RSB. This inconsistency could indicate one of two things, that men are engaging in less RSB than they intend to, or that women are engaging in more RSB than originally intended. Little research has been done focusing on the cause behind gender differences in RSB, but such a direction could be useful in targeting interventions more specifically based on gender.

In conclusion, the current study clarified the relationship between RSB and disinhibition by demonstrating that all variation seen at the personality level was accounted for by increased alcohol use, which also accounted for additional variation. Subsequently, future interventions should focus on reducing alcohol consumption in order to reduce RSB. More research is needed on the gender differences found with the Intent to Engage in RSB subfactor and in the gender difference in the predictive power of alcohol use.

Table 1

Sample Characteristics

	Full sample (n = 165)
Percent male	49.7
Mean age (SD)	19.15 (1.61)
Race	
White/Caucasian	72.7
Asian	15.8
Black/African-American	7.3
Hispanic	4.2
Marital status	Unmarried*

Note: all participants were college students aged 18-25, and all were unmarried

Table 2

Pearson Correlations for all factors of RSB, total RSB, and Disinhibition

	Sex with Uncommitted Partners	Risky Sex Acts	Impulsive Sexual Behavior	Intent to Engage in RSB	Risky Anal Sex Acts	Total RSB
Sex with Uncommitted Partners	-					
Risky Sex Acts	.283**	-				
Impulsive Sexual Behavior	.658**	.038	-			
Intent to Engage in RSB	.506**	.017	.568**	-		
Risky Anal Sex Acts	.013	.443**	-.027	-.030	-	
Total RSB	.639**	.858**	.465**	.452**	.433**	-
Disinhibition	.241**	.060	.220**	.165*	.031	.173*

Note: RSB= risky sexual behavior; **p < .01; *p < .05

Table 3

Hierarchical Regression of Study Variables on Total RSB

Step	Variable	R-squared Change	F change	β
1	Age	.016	F (4,159) = .630	.005
	Gender			-.090
	Race			.065
	Education			-.072
2	Disinhibition	.029	F(1, 158) = 4.750	.170*
3	Alcohol Use	.109	F (1, 157) = 20.174	.373**
4	Disinhibition x Alcohol Use	.000	F (1, 156) = .014	.009

Note: RSB= risky sexual behavior; **p < .01; *p < .05

Table 4

Hierarchical Regression of Study Variables on Sex with Uncommitted Partners

Step	Variable	R-squared Change	F change	β
1	Age	.042	F(4, 159) = 1.762	-.055
	Gender			-.107
	Race			.153
	Education			-.082
2	Disinhibition	.053	F(1, 158) = 9.321	.232*
3	Alcohol Use	.120	F(1, 157) = 24.036	.391**
4	Disinhibition x Alcohol Use	.001	F(1, 156) = .239	.036

Note: RSB= risky sexual behavior; ** p < .01; * p < .05

Table 5

Hierarchical Regression of Study Variables on Risky Sex Acts

Step	Variable	R-squared Change	F change	β
1	Age	.009	$F(4, 159) = .380$	.077
	Gender			-.008
	Race			.023
	Education			-.093
2	Disinhibition	.004	$F(1, 158) = .651$	.064
3	Alcohol Use	.013	$F(1, 157) = 2.015$	.126
4	Disinhibition x Alcohol Use	.000	$F(1, 156) = .011$	.009

Note: RSB= risky sexual behavior; $^{**}p < .01$; $^{*}p < .05$

Table 6

Hierarchical Regression of Study Variables on Impulsive Sexual Behaviors

Step	Variable	R-squared Change	F change	β
1	Age	.047	F (4,159) = 1.979	-.165
	Gender			-.139
	Race			.091
	Education			.075
2	Disinhibition	.042	F(1, 158) = 7.368	.207
3	Alcohol Use	.222	F(1, 157) = 50.784	.533**
4	Disinhibition x Alcohol Use	.002	F(1, 156) = .469	-.047

Note: RSB= risky sexual behavior; **p < .01; *p < .05

Table 7

Hierarchical Regression of Study Variables on Intent to Engage in RSB

Step	Variable	R-squared Change	F change	β
1	Age	.040	F(4,159) = 1.662	-.038
	Gender			-.191
	Race			.064
	Education			.037
2	Disinhibition	.026	F(1, 158) = 4.359	.161*
3	Alcohol Use	.118	F(1, 157) = 22.810	.389**
4	Disinhibition x Alcohol Use	.000	F(1, 156) = .031	.013

Note: RSB= risky sexual behavior; **p < .01; *p < .05

Table 8

Hierarchical Regression of Alcohol Use on Intent to Engage in RSB, by gender

Step	Variable	R-squared Change		F change		β	
		Male	Female	Male	Female	Male	Female
1	Age	.007	.026	.179	.691	-.020	-.082
	Race					.079	.024
	Education					-.013	.161
2	Disinhibition	.013	.074	1.038	6.313	.116	.273*
	Alcohol Use	**.124**	**.146**	**11.042**	**14.738**	**.384****	**.454****
3	Disinhibition x Alcohol Use	.001	.007	.080	.686	-.031	.091

Note: $^{**}p < .01$; $^{*}p < .05$

Table 9

Hierarchical Regression of Study Variables on Risky Anal Sex Acts Subfactor

Step	Variable	R-squared Change	F change	β
1	Age	.031	$F(4,159) = 1.277$	-.035
	Gender			.073
	Race			-.108
	Education			-.096
2	Disinhibition	.001	$F(1, 158) = .120$	.027
3	Alcohol Use	.015	$F(1, 157) = 2.419$	.137
4	Disinhibition x Alcohol Use	.000	$F(1, 156) = .011$	.008

Note: RSB= risky sexual behavior; [**]$p < .01$; [*]$p < .05$

Appendix B

The Personality Inventory for DSM-5 (PID-5)—Adult

Name/ID: _____   Age: _____   Sex: ❏ Male ❏ Female   Date:_____

	Instructions to the individual receiving care: This is a list of things different people might say about themselves. We are interested in how you would describe yourself. There are no "right" or "wrong" answers. So you can describe yourself as honestly as possible, we will keep your responses confidential. We'd like you to take your time and read each statement carefully, selecting the response that best describes you.					Clinician Use
		Very False or Often False	Sometimes or Somewhat False	Sometimes or Somewhat True	Very True or Often True	Item score
1	I don't get as much pleasure out of things as others seem to.	0	1	2	3	
2	Plenty of people are out to get me.	0	1	2	3	
3	People would describe me as reckless.	0	1	2	3	
4	I feel like I act totally on impulse.	0	1	2	3	
5	I often have ideas that are too unusual to explain to anyone.	0	1	2	3	
6	I lose track of conversations because other things catch my attention.	0	1	2	3	
7	I avoid risky situations.	0	1	2	3	
8	When it comes to my emotions, people tell me I'm a "cold fish".	0	1	2	3	
9	I change what I do depending on what others want.	0	1	2	3	
10	I prefer not to get too close to people.	0	1	2	3	
11	I often get into physical fights.	0	1	2	3	
12	I dread being without someone to love me.	0	1	2	3	
13	Being rude and unfriendly is just a part of who I am.	0	1	2	3	
14	I do things to make sure people notice me.	0	1	2	3	
15	I usually do what others think I should do.	0	1	2	3	
16	I usually do things on impulse without thinking about what might happen as a result.	0	1	2	3	
17	Even though I know better, I can't stop making rash decisions.	0	1	2	3	
18	My emotions sometimes change for no good reason.	0	1	2	3	
19	I really don't care if I make other people suffer.	0	1	2	3	
20	I keep to myself.	0	1	2	3	
21	I often say things that others find odd or strange.	0	1	2	3	
22	I always do things on the spur of the moment.	0	1	2	3	
23	Nothing seems to interest me very much.	0	1	2	3	
24	Other people seem to think my behavior is weird.	0	1	2	3	
25	People have told me that I think about things in a really strange way.	0	1	2	3	
26	I almost never enjoy life.	0	1	2	3	
27	I often feel like nothing I do really matters.	0	1	2	3	
28	I snap at people when they do little things that irritate me.	0	1	2	3	
29	I can't concentrate on anything.	0	1	2	3	
30	I'm an energetic person.	0	1	2	3	
31	Others see me as irresponsible.	0	1	2	3	
32	I can be mean when I need to be.	0	1	2	3	
33	My thoughts often go off in odd or unusual directions.	0	1	2	3	
34	I've been told that I spend too much time making sure things are exactly in place.	0	1	2	3	
35	I avoid risky sports and activities.	0	1	2	3	
36	I can have trouble telling the difference between dreams and waking life.	0	1	2	3	

The Personality Inventory for DSM-5 (PID-5)—Adult, *continued*

		Very False or Often False	Sometimes or Somewhat False	Sometimes or Somewhat True	Very True or Often True	**Clinician Use** Item score
37	Sometimes I get this weird feeling that parts of my body feel like they're dead or not really me.	0	1	2	3	
38	I am easily angered.	0	1	2	3	
39	I have no limits when it comes to doing dangerous things.	0	1	2	3	
40	To be honest, I'm just more important than other people.	0	1	2	3	
41	I make up stories about things that happened that are totally untrue.	0	1	2	3	
42	People often talk about me doing things I don't remember at all.	0	1	2	3	
43	I do things so that people just have to admire me.	0	1	2	3	
44	It's weird, but sometimes ordinary objects seem to be a different shape than usual.	0	1	2	3	
45	I don't have very long-lasting emotional reactions to things.	0	1	2	3	
46	It is hard for me to stop an activity, even when it's time to do so.	0	1	2	3	
47	I'm not good at planning ahead.	0	1	2	3	
48	I do a lot of things that others consider risky.	0	1	2	3	
49	People tell me that I focus too much on minor details.	0	1	2	3	
50	I worry a lot about being alone.	0	1	2	3	
51	I've missed out on things because I was busy trying to get something I was doing exactly right.	0	1	2	3	
52	My thoughts often don't make sense to others.	0	1	2	3	
53	I often make up things about myself to help me get what I want.	0	1	2	3	
54	It doesn't really bother me to see other people get hurt.	0	1	2	3	
55	People often look at me as if I'd said something really weird.	0	1	2	3	
56	People don't realize that I'm flattering them to get something.	0	1	2	3	
57	I'd rather be in a bad relationship than be alone.	0	1	2	3	
58	I usually think before I act.	0	1	2	3	
59	I often see vivid dream-like images when I'm falling asleep or waking up.	0	1	2	3	
60	I keep approaching things the same way, even when it isn't working.	0	1	2	3	
61	I'm very dissatisfied with myself.	0	1	2	3	
62	I have much stronger emotional reactions than almost everyone else.	0	1	2	3	
63	I do what other people tell me to do.	0	1	2	3	
64	I can't stand being left alone, even for a few hours.	0	1	2	3	
65	I have outstanding qualities that few others possess.	0	1	2	3	
66	The future looks really hopeless to me.	0	1	2	3	
67	I like to take risks.	0	1	2	3	
68	I can't achieve goals because other things capture my attention.	0	1	2	3	
69	When I want to do something, I don't let the possibility that it might be risky stop me.	0	1	2	3	
70	Others seem to think I'm quite odd or unusual.	0	1	2	3	
71	My thoughts are strange and unpredictable.	0	1	2	3	
72	I don't care about other people's feelings.	0	1	2	3	

The Personality Inventory for DSM-5 (PID-5)—Adult, *continued*

		Very False or Often False	Sometimes or Somewhat False	Sometimes or Somewhat True	Very True or Often True	Item score
	Instructions to individual receiving care: Please continue to complete the questionnaire. Remember, this is a list of things different people might say about themselves. We are interested in how you would describe yourself. There are no "right" or "wrong" answers. So you can describe yourself as honestly as possible, we will keep your responses confidential. We'd like you to take your time and read each statement carefully, selecting the response that best describes you.				**Clinician Use**	
73	You need to step on some toes to get what you want in life.	0	1	2	3	
74	I love getting the attention of other people.	0	1	2	3	
75	I go out of my way to avoid any kind of group activity.	0	1	2	3	
76	I can be sneaky if it means getting what I want.	0	1	2	3	
77	Sometimes when I look at a familiar object, it's somehow like I'm seeing it for the first time.	0	1	2	3	
78	It is hard for me to shift from one activity to another.	0	1	2	3	
79	I worry a lot about terrible things that might happen.	0	1	2	3	
80	I have trouble changing how I'm doing something even if what I'm doing isn't going well.	0	1	2	3	
81	The world would be better off if I were dead.	0	1	2	3	
82	I keep my distance from people.	0	1	2	3	
83	I often can't control what I think about.	0	1	2	3	
84	I don't get emotional.	0	1	2	3	
85	I resent being told what to do, even by people in charge.	0	1	2	3	
86	I'm so ashamed by how I've let people down in lots of little ways.	0	1	2	3	
87	I avoid anything that might be even a little bit dangerous.	0	1	2	3	
88	I have trouble pursuing specific goals even for short periods of time.	0	1	2	3	
89	I prefer to keep romance out of my life.	0	1	2	3	
90	I would never harm another person.	0	1	2	3	
91	I don't show emotions strongly.	0	1	2	3	
92	I have a very short temper.	0	1	2	3	
93	I often worry that something bad will happen due to mistakes I made in the past.	0	1	2	3	
94	I have some unusual abilities, like sometimes knowing exactly what someone is thinking.	0	1	2	3	
95	I get very nervous when I think about the future.	0	1	2	3	
96	I rarely worry about things.	0	1	2	3	
97	I enjoy being in love.	0	1	2	3	
98	I prefer to play it safe rather than take unnecessary chances.	0	1	2	3	
99	I sometimes have heard things that others couldn't hear.	0	1	2	3	
100	I get fixated on certain things and can't stop.	0	1	2	3	
101	People tell me it's difficult to know what I'm feeling.	0	1	2	3	
102	I am a highly emotional person.	0	1	2	3	
103	Others would take advantage of me if they could.	0	1	2	3	
104	I often feel like a failure.	0	1	2	3	
105	If something I do isn't absolutely perfect, it's simply not acceptable.	0	1	2	3	
106	I often have unusual experiences, such as sensing the presence of someone who isn't actually there.	0	1	2	3	
107	I'm good at making people do what I want them to do.	0	1	2	3	
108	I break off relationships if they start to get close.	0	1	2	3	
109	I'm always worrying about something.	0	1	2	3	
110	I worry about almost everything.	0	1	2	3	

The Personality Inventory for DSM-5 (PID-5)—Adult, *continued*

		Very False or Often False	Sometimes or Somewhat False	Sometimes or Somewhat True	Very True or Often True	Item score
	Instructions to individual receiving care: Please continue to complete the questionnaire. Remember, this is a list of things different people might say about themselves. We are interested in how you would describe yourself. There are no "right" or "wrong" answers. So you can describe yourself as honestly as possible, we will keep your responses confidential. We'd like you to take your time and read each statement carefully, selecting the response that best describes you.				**Clinician Use**	
111	I like standing out in a crowd.	0	1	2	3	
112	I don't mind a little risk now and then.	0	1	2	3	
113	My behavior is often bold and grabs peoples' attention.	0	1	2	3	
114	I'm better than almost everyone else.	0	1	2	3	
115	People complain about my need to have everything all arranged.	0	1	2	3	
116	I always make sure I get back at people who wrong me.	0	1	2	3	
117	I'm always on my guard for someone trying to trick or harm me.	0	1	2	3	
118	I have trouble keeping my mind focused on what needs to be done.	0	1	2	3	
119	I talk about suicide a lot.	0	1	2	3	
120	I'm just not very interested in having sexual relationships.	0	1	2	3	
121	I get stuck on things a lot.	0	1	2	3	
122	I get emotional easily, often for very little reason.	0	1	2	3	
123	Even though it drives other people crazy, I insist on absolute perfection in everything I do.	0	1	2	3	
124	I almost never feel happy about my day-to-day activities.	0	1	2	3	
125	Sweet-talking others helps me get what I want.	0	1	2	3	
126	Sometimes you need to exaggerate to get ahead.	0	1	2	3	
127	I fear being alone in life more than anything else.	0	1	2	3	
128	I get stuck on one way of doing things, even when it's clear it won't work.	0	1	2	3	
129	I'm often pretty careless with my own and others' things.	0	1	2	3	
130	I am a very anxious person.	0	1	2	3	
131	People are basically trustworthy.	0	1	2	3	
132	I am easily distracted.	0	1	2	3	
133	It seems like I'm always getting a "raw deal" from others.	0	1	2	3	
134	I don't hesitate to cheat if it gets me ahead.	0	1	2	3	
135	I check things several times to make sure they are perfect.	0	1	2	3	
136	I don't like spending time with others.	0	1	2	3	
137	I feel compelled to go on with things even when it makes little sense to do so.	0	1	2	3	
138	I never know where my emotions will go from moment to moment.	0	1	2	3	
139	I have seen things that weren't really there.	0	1	2	3	
140	It is important to me that things are done in a certain way.	0	1	2	3	
141	I always expect the worst to happen.	0	1	2	3	
142	I try to tell the truth even when it's hard.	0	1	2	3	
143	I believe that some people can move things with their minds.	0	1	2	3	
144	I can't focus on things for very long.	0	1	2	3	
145	I steer clear of romantic relationships.	0	1	2	3	
146	I'm not interested in making friends.	0	1	2	3	
147	I say as little as possible when dealing with people.	0	1	2	3	
148	I'm useless as a person.	0	1	2	3	

The Personality Inventory for DSM-5 (PID-5)—Adult, *continued*

		Very False or Often False	Sometimes or Somewhat False	Sometimes or Somewhat True	Very True or Often True	Clinician Use
	Instructions to individual receiving care: Please continue to complete the questionnaire. Remember, this is a list of things different people might say about themselves. We are interested in how you would describe yourself. There are no "right" or "wrong" answers. So you can describe yourself as honestly as possible, we will keep your responses confidential. We'd like you to take your time and read each statement carefully, selecting the response that best describes you.					Item score
149	I'll do just about anything to keep someone from abandoning me.	0	1	2	3	
150	Sometimes I can influence other people just by sending my thoughts to them.	0	1	2	3	
151	Life looks pretty bleak to me.	0	1	2	3	
152	I think about things in odd ways that don't make sense to most people.	0	1	2	3	
153	I don't care if my actions hurt others.	0	1	2	3	
154	Sometimes I feel "controlled" by thoughts that belong to someone else.	0	1	2	3	
155	I really live life to the fullest.	0	1	2	3	
156	I make promises that I don't really intend to keep.	0	1	2	3	
157	Nothing seems to make me feel good.	0	1	2	3	
158	I get irritated easily by all sorts of things.	0	1	2	3	
159	I do what I want regardless of how unsafe it might be.	0	1	2	3	
160	I often forget to pay my bills.	0	1	2	3	
161	I don't like to get too close to people.	0	1	2	3	
162	I'm good at conning people.	0	1	2	3	
163	Everything seems pointless to me.	0	1	2	3	
164	I never take risks.	0	1	2	3	
165	I get emotional over every little thing.	0	1	2	3	
166	It's no big deal if I hurt other peoples' feelings.	0	1	2	3	
167	I never show emotions to others.	0	1	2	3	
168	I often feel just miserable.	0	1	2	3	
169	I have no worth as a person.	0	1	2	3	
170	I am usually pretty hostile.	0	1	2	3	
171	I've skipped town to avoid responsibilities.	0	1	2	3	
172	I've been told more than once that I have a number of odd quirks or habits.	0	1	2	3	
173	I like being a person who gets noticed.	0	1	2	3	
174	I'm always fearful or on edge about bad things that might happen.	0	1	2	3	
175	I never want to be alone.	0	1	2	3	
176	I keep trying to make things perfect, even when I've gotten them as good as they're likely to get.	0	1	2	3	
177	I rarely feel that people I know are trying to take advantage of me.	0	1	2	3	
178	I know I'll commit suicide sooner or later.	0	1	2	3	
179	I've achieved far more than almost anyone I know.	0	1	2	3	
180	I can certainly turn on the charm if I need to get my way.	0	1	2	3	
181	My emotions are unpredictable.	0	1	2	3	
182	I don't deal with people unless I have to.	0	1	2	3	
183	I don't care about other peoples' problems.	0	1	2	3	
184	I don't react much to things that seem to make others emotional.	0	1	2	3	
185	I have several habits that others find eccentric or strange.	0	1	2	3	
186	I avoid social events.	0	1	2	3	

The Personality Inventory for DSM-5 (PID-5)—Adult, *continued*

		Very False or Often False	Sometimes or Somewhat False	Sometimes or Somewhat True	Very True or Often True	Clinician Use / Item score
	Instructions to individual receiving care: Please continue to complete the questionnaire. Remember, this is a list of things different people might say about themselves. We are interested in how you would describe yourself. There are no "right" or "wrong" answers. So you can describe yourself as honestly as possible, we will keep your responses confidential. We'd like you to take your time and read each statement carefully, selecting the response that best describes you.					Clinician Use
187	I deserve special treatment.	0	1	2	3	
188	It makes me really angry when people insult me in even a minor way.	0	1	2	3	
189	I rarely get enthusiastic about anything.	0	1	2	3	
190	I suspect that even my so-called "friends" betray me a lot.	0	1	2	3	
191	I crave attention.	0	1	2	3	
192	Sometimes I think someone else is removing thoughts from my head.	0	1	2	3	
193	I have periods in which I feel disconnected from the world or from myself.	0	1	2	3	
194	I often see unusual connections between things that most people miss.	0	1	2	3	
195	I don't think about getting hurt when I'm doing things that might be dangerous.	0	1	2	3	
196	I simply won't put up with things being out of their proper places.	0	1	2	3	
197	I often have to deal with people who are less important than me.	0	1	2	3	
198	I sometimes hit people to remind them who's in charge	0	1	2	3	
199	I get pulled off-task by even minor distractions.	0	1	2	3	
200	I enjoy making people in control look stupid.	0	1	2	3	
201	I just skip appointments or meetings if I'm not in the mood.	0	1	2	3	
202	I try to do what others want me to do.	0	1	2	3	
203	I prefer being alone to having a close romantic partner.	0	1	2	3	
204	I am very impulsive.	0	1	2	3	
205	I often have thoughts that make sense to me but that other people say are strange.	0	1	2	3	
206	I use people to get what I want.	0	1	2	3	
207	I don't see the point in feeling guilty about things I've done that have hurt other people.	0	1	2	3	
208	Most of the time I don't see the point in being friendly.	0	1	2	3	
209	I've had some really weird experiences that are very difficult to explain.	0	1	2	3	
210	I follow through on commitments.	0	1	2	3	
211	I like to draw attention to myself.	0	1	2	3	
212	I feel guilty much of the time.	0	1	2	3	
213	I often "zone out" and then suddenly come to and realize that a lot of time has passed.	0	1	2	3	
214	Lying comes easily to me.	0	1	2	3	
215	I hate to take chances.	0	1	2	3	
216	I'm nasty and short to anybody who deserves it.	0	1	2	3	
217	Things around me often feel unreal, or more real than usual.	0	1	2	3	
218	I'll stretch the truth if it's to my advantage.	0	1	2	3	
219	It is easy for me to take advantage of others.	0	1	2	3	
220	I have a strict way of doing things.	0	1	2	3	

Personality Trait Facet and Domain Scoring: The Personality Inventory for DSM-5 (PID-5)—Adult

Step 1: Reverse the scores on the following items (i.e., 3 becomes 0, 2 becomes 1, 1 becomes 2, and 0 becomes 3): 7, 30, 35, 58, 87, 90, 96, 97, 98, 131, 142, 155, 164, 177, 210, and 215.

Step 2: Compute the Personality Trait Facet Scores using the Facet Table below. As a reminder, the reverse scored items from Step 1 are marked with the letter R in the Table (e.g., 7R).

Step 3: Compute the Personality Trait Domain Scores using the Domain Table below.

	A. Personality Trait Facet	B. PID-5 items	C. Total/Partial Raw Facet Score	D. Prorated Raw Facet Score	E. Average Facet Score
FOR CLINICIAN USE ONLY	Anhedonia	1, 23, 26, *30R*, 124, *155R*, 157, 189			
	Anxiousness	79, 93, 95, *96R*, 109, 110, 130, 141, 174			
	Attention Seeking	14, 43, 74, 111, 113, 173, 191,211			
	Callousness	11, 13, 19, 54, 72, 73, *90R*, 153, 166, 183, 198, 200, 207, 208			
	Deceitfulness	41, 53, 56, 76, 126, 134, *142R*, 206, 214, 218			
	Depressivity	27, 61, 66, 81, 86, 104, 119, 148, 151, 163, 168, 169, 178, 212			
	Distractibility	6, 29, 47, 68, 88, 118, 132, 144, 199			
	Eccentricity	5, 21, 24, 25, 33, 52, 55, 70, 71, 152, 172,185, 205			
	Emotional Lability	18, 62, 102, 122, 138, 165, 181			
	Grandiosity	40, 65, 114, 179, 187, 197			
	Hostility	28, 32, 38, 85, 92, 116, 158, 170, 188, 216			
	Impulsivity	4, 16, 17, 22, *58R*, 204			
	Intimacy Avoidance	89, *97R*, 108, 120, 145, 203			
	Irresponsibility	31, 129, 156, 160, 171, 201, *210R*			
	Manipulativeness	107, 125, 162, 180, 219			
	Perceptual Dysregulation	36, 37, 42, 44, 59, 77, 83, 154, 192, 193, 213, 217			
	Perseveration	46, 51, 60, 78, 80, 100, 121, 128, 137			
	Restricted Affectivity	8, 45, 84, 91, 101, 167, 184			
	Rigid Perfectionism	34, 49, 105, 115, 123, 135, 140, 176, 196, 220			
	Risk Taking	3, *7R*, *35R*, 39, 48, 67, 69, *87R*, *98R*, 112, 159, *164R*, 195, *215R*			
	Separation Insecurity	12, 50, 57,64, 127, 149, 175			
	Submissiveness	9, 15, 63, 202			
	Suspiciousness	2, 103, 117, *131R*, 133, *177R*, 190			
	Unusual Beliefs & Experiences	94, 99, 106, 139, 143, 150, 194, 209			
	Withdrawal	10, 20, 75, 82, 136, 146, 147, 161, 182, 186			

	A. Personality Trait Domain	B. PID-5 Facet Scales Contributing Primarily to Domain	C. Total of Average Facet Scores (from column E of Facet Table)	D. Overall Average of Facet Scores (The total in column C of this table divided by 3 [i.e., the number of scales listed in column B])
FOR CLINICIAN USE ONLY	Negative Affect	Emotional Lability, Anxiousness, Separation Insecurity		
	Detachment	Withdrawal, Anhedonia, Intimacy Avoidance		
	Antagonism	Manipulativeness, Deceitfulness, Grandiosity		
	Disinhibition	Irresponsibility, Impulsivity, Distractibility		
	Psychoticism	Unusual Beliefs & Experiences, Eccentricity, Perceptual Dysregulation		

Instructions to Clinicians
This Personality Inventory for DSM-5 (PID-5)—Adult is a 220 item self-rated personality trait assessment scale for adults age 18 and older. It assesses 25 personality trait facets including Anhedonia, Anxiousness, Attention Seeking, Callousness, Deceitfulness, Depressivity, Distractibility, Eccentricity, Emotional Lability, Grandiosity, Hostility, Impulsivity, Intimacy Avoidance, Irresponsibility, Manipulativeness, Perceptual Dysregulation, Perseveration, Restricted Affectivity, Rigid Perfectionism, Risk Taking, Separation Insecurity, Submissiveness, Suspiciousness, Unusual Beliefs and Experiences, and Withdrawal, with each trait facet consisting of 4 to 14 items. Specific triplets of facets (groups of three) can be combined to yield indices of the five broader trait domains of Negative Affect, Detachment, Antagonism, Disinhibition, and Psychoticism. The measure is completed by the individual prior to a visit with the clinician. Each item asks the individual to rate how well the item describes him or her generally.

Scoring and Interpretation
Each item on the measure is rated on a 4-point scale. The response categories for the items are 0=very false or often false; 1=sometimes or somewhat false; 2=sometimes or somewhat true; 3=very true or often true. For items 7, 30, 35, 58, 87, 90, 96, 97, 98, 131, 142, 155, 164, 177, 210, and 215, the items are reverse-coded prior to entering into scale score computations (see instructions above).

The scores on the items within each trait facet should be summed and entered in the appropriate raw facet score box. In addition, the clinician is asked to calculate and use **average scores for each facet and domain. The average scores** reduce the overall score as well as the scores for each domain to a 4-point scale, which allows the clinician to think of the individual's personality dysfunction relative to observed norms.[1] The **average facet score** is calculated by dividing the raw facet score by the number of items in the facet (e.g., if all the items within the "Anhedonia" facet are rated as being "sometimes or somewhat true," then the average facet score would be 16/8 = 2, indicating moderate anhedonia). The **average domain scores** are calculated by summing and then averaging the 3 facet scores contributing primarily to a specific domain. For example, if the average facet scores on Emotional Lability, Anxiousness, and Separation Insecurity (scales primarily indexing negative affect) are all 2, then the sum of these scores would be 6, and the average domain score would be 6/3 = 2. Higher average scores indicate greater dysfunction in a specific personality trait facet or domain.

Note: If more than 25% of the items within a trait facet are left unanswered, the corresponding facet score should not be used. Therefore, the individual receiving care should be encouraged to complete all of the items on the measure. Nevertheless, if 25% or less of the items are unanswered for a specific facet, you are asked to prorate the facet score by first summing the number of items that were answered to get a **partial raw score**. Next, multiply the partial raw score by the total number of items contributing to that facet (i.e., 4-14). Finally, divide the resulting value by the number of items that were actually answered to obtain the prorated total or domain raw score.

Prorated Score =   (Partial Raw Score x number of items on the PID-5)
                                  Number of items that were actually answered

If the result is a fraction, round to the nearest whole number.

Domain scores should not be computed if any one of the three contributing facet scores cannot be computed because of missing item responses.

Frequency of Use
To track change in the severity of the individual's personality dysfunction over time, it is recommended that the measure be completed at regular intervals as clinically indicated, depending on the stability of the individual's symptoms and treatment status. Consistently high scores on a facet or domain may indicate significant and problematic areas for the individual receiving care that might warrant further assessment, treatment, and follow-up. Your clinical judgment should guide your decision.

[1]Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM-5. *Psychological Medicine, 42*, 1879-1890.

Appendix C

Alcohol Use Disorders Identification Test (AUDIT)

Please circle the answer that is correct for you

1. How often do you have a drink containing alcohol?

| Never | Monthly or less | Two to four times a month | Two to three times a week | Four or more times a week |

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

| 1 or 2 | 3 or 4 | 5 or 6 | 7 to 9 | 10 or more |

3. How often do you have six or more drinks on one occasion?

| Never | Less than monthly | Monthly | Weekly | Daily or almost daily |

4. How often during the last year have you found that you were not able to stop drinking once you had started?

| Never | Less than monthly | Monthly | Weekly | Daily or almost daily |

5. How often during the last year have you failed to do what was normally expected from you because of drinking?

| Never | Less than monthly | Monthly | Weekly | Daily or almost daily |

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

| Never | Less than monthly | Monthly | Weekly | Daily or almost daily |

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

| Never | Less than monthly | Monthly | Weekly | Daily or almost daily |

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

| Never | Less than monthly | Monthly | Weekly | Daily or almost daily |

9. Have you or someone else been injured as a result of your drinking?

| No | Yes, but not in the last year | Yes, during the last year |

10. Has a relative or friend, or a doctor or other health worker been concerned about your drinking or suggested you cut down?

| No | Yes, but not in the last year | Yes, during the last year |

Procedure for Scoring AUDIT

Questions 1–8 are scored 0, 1, 2, 3 or 4. Questions 9 and 10 are scored 0, 2 or 4 only. The response coding is as follows:

	0	1	2	3	4
Question 1	Never	Monthly or less	Two to four times per month	Two to three times per week	Four or more times per week
Question 2	1 or 2	3 or 4	5 or 6	7 to 9	10 or more
Questions 3–8	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
Questions 9–10	No		Yes, but not in the last year		Yes, during the last year

The minimum score (for non-drinkers) is 0 and the maximum possible score is 40.

A score of 8 or more indicates a strong likelihood of hazardous or harmful alcohol consumption.

Appendix D

Sexual Risk Survey (SRS)

Directions: Please read the following statements and record the number that is true for you over the past six months/2 weeks for each question on the blank. If you do not know for sure how many times a behavior took place, try to estimate the number as close as you can. Thinking about the average number of times the behavior happened a week or a month might make it easier to estimate an accurate number, especially if the behavior happened fairly regularly. If you've had multiple partners, try to think about how long you were with each partner, amount of sexual encounters you had with each and try to get an accurate estimate of the total number of each behavior. If the question does not apply to you or you have never engaged in the behavior in the question, put a "0" on the blank. Please do not leave items blank. Remember that in the following questions "sex" includes oral, anal and vaginal sex and that "sexual behavior" includes passionate kissing, making out, fondling, petting, oral-to-anal stimulation and hand-to-genital stimulation. Refer to the Glossary for any words you are not sure about. Please consider only the last six months/2 weeks when answering and please be honest.

In the **PAST SIX MONTHS/2 weeks**:

1. _____ How many partners have you engaged in sexual behavior with but not had sex with?

2. _____ How many times have you left a social event with someone you just met?

3. _____ How many times have you "hooked up" and engaged in sexual behavior with someone you didn't know or didn't know well but did not have sex?

4. _____ How many times have you not remembered what you did the night before?

5. _____ How many times have you gone out to bars/parties/social events with the intent of engaging in sexual behavior with someone?

6. _____ How many times have you had others express concern about your sexual behavior?

7. _____ How many times have you felt so sexual/horny that you could not control your sexual behaviors?

8. _____ How many times have you gone out to bars/parties/social events with the intent of "hooking up" and having sex with someone?

9. _____ How many times have you gotten so drunk or high that you couldn't control your sexual behaviors?

10. _____ How many times have you drank or gotten high to the point of losing memory or blacking out?

11. _____ How many times have you had an unexpected and unanticipated sexual experience?

12. _____ How many times have you had a sexual encounter you engaged in willingly but later regretted?

For the next set of questions, follow the same direction as before. However, for questions 13-37, if you have never had sex (oral, anal or vaginal), please put a "0" on each blank.

In the **PAST SIX MONTHS/2 weeks**:

13. _____ How many partners have you had sex with?

14. _____ How many times have you had vaginal intercourse without a latex or polyurethane condom? Note: Include times when you have used a lambskin or membrane condom.

15. _____ How many times have you had vaginal intercourse without protection against pregnancy?

16. _____ How many times have you given or received fellatio (oral sex on a man) without a condom?

17. _____ How many times have you given or received cunnilingus (oral sex on a woman) without a dental dam or "adequate protection" (please see definition of dental dam for what is considered adequate protection)?

18. _____ How many times have you had anal sex without a condom?

19. _____ How many times have you or your partner engaged in anal penetration by a hand ("fisting") or other object without a latex glove or condom followed by unprotected anal sex?

20. _____ How many times have you given or received analingus (oral stimulation of the anal region, "rimming") without a dental dam or "adequate protection"(please see definition of dental dam for what is considered adequate protection)?

21. _____ How many people have you had sex that you know but are not involved in any sort of relationship with (i.e. "friends with benefits", "fuck buddies")?

22. _____ How many times have you had sex with someone you don't know well or just met?

23. _____ How many times have you or your partner used alcohol or drugs before or during sex?

24. _____ How many times have you had sex with a new partner before discussing sexual history, IV drug use, disease status and other current sexual partners?

25. _____ How many times have you had sex to get money, drugs/alcohol or favors?

26. _____ How many times have you cheated on a regular committed partner?

27. _____ How many times have you had sex with a prostitute/hooker?

28. _____ How many times (that you know of) have you had sex with someone who had a STI?

29. _____ How many times (that you know of) have you had sex with someone who has had many sexual partners?

30. _____ How many times (that you know of) have you had sex with someone who used IV drugs?

31. _____ How many times have you known that a partner cheated on you and you continued to have sexual relations with that partner after you knew that he/she had cheated? (If the same partner has cheated more than once and you've had sex with him/her after each time, please count each time.)

32. _____ How many times have you gone to sex parties?

33. _____ How many times have you reused condoms (had sex more than once without getting a new condom or gone from one type of sex to another without getting a new condom, such as from vaginal to anal sex)?

34. _____ How many partners (that you know of) have you had sex with who had been sexually active before you were with them but had not been tested for STIs/HIV?

35. _____ How many times have you had sex only using the withdrawal method ("pulling out") as a form of birth control?

36. _____ How many partners have you had sex with that you didn't trust?

37. _____ How many times (that you know of) have you had sex with someone who was also engaging in sex with others during the same time period?

BIBLIOGRAPHY

Allen, J.P., Litten, R.Z., Fertig, J. B., Babor, T. (1997). A review of research on the alcohol use disorders identification test (AUDIT). *Alcoholism: Clinical and Experimental Research*, 21(4). doi: 0145-6008/97/2104-0613S03.00/0.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

Cook, R. L., & Clark, D. B. (2005). Is there an association between alcohol consumption and sexually transmitted diseases? A systematic review. *Sexually Transmitted Diseases*, 32(3), 156–164. http://dx.doi.org/10.1097/ 01.olq.0000151418.03899.97.

Cooper ML. (2006). Does drinking promote risky sexual behavior? A complex answer to a simple question. *Current Directions in Psychological Science*;15:19–23. doi: 10.1111/j.0963-7214.2006.00385.x.

Deckman, T., & DeWall, C. (2011). Negative urgency and risky sexual behaviors: A clarification of the relationship between impulsivity and risky sexual behavior. *Personality and Individual Differences*, 51(5), 674–678. http://dx.doi.org/10.1016/ j.paid.2011.06.004.

Donohew, L., Zimmerman, R., Cupp, P.S., Novak, S., Colon, S., Abell, R. (2000). Sensation seeking, impulsive decision-making, and risky sex: Implications for risk-taking and design of interventions. *Personality and Individual Differences*, *28*(6), 1079-1091. doi: 10.1016/S0191-8869(99)00158-0.

Eagly, A.H. (1997). Sex differences in social behavior: Comparing social role theory and evolutionary psychology. *American Psychologist*, 52(12), 1380-1383. doi: 10.1037/0003-066X.52.12.1380.b.

Fergusson, D.M., & Lynskey, M.T. (1996). Alcohol misuse and adolescent sexual behaviors and risk taking. *Pediatrics*, 98(1), 91-96.

Halpern-Flesher, B. L., Millstein, S. G., & Ellen, J. M. (1996). Relationship of alcohol use and risky sexual behavior: A review and analysis of findings. *Journal of Adolescent Health, 19,* 331-336.

Hutton, H. E., McCaul, M. E., Santora, P. B. and Erbelding, E. J. (2008). The relationship between recent alcohol use and sexual behaviors: Gender differences among sexually transmitted disease clinic patients. *Alcoholism: Clinical and Experimental Research*, 32: 2008–2015. doi: 10.1111/j.1530-0277.2008.00788.x.

Jackson, S. M. and Cram, F. (2003). Disrupting the sexual double standard: Young women's talk about heterosexuality. *British Journal of Social Psychology*, 42: 113–127. doi: 10.1348/014466603763276153.

Justus, A.N., Finn, P.R., & Steinmetz, J.E. (2000). The influence of traits of disinhibition on the association between alcohol use and risky sexual behavior. *Alcoholism: Clinical and Experimental Research*, 24(7), 1028-1035. doi: 0145-6008/00/2407-1028$03.00/0.

Kahn, J., Kaplowitz, R., Goodman, E., Emans, S. (2002). The association between impulsiveness and sexual risk behaviors in adolescent young women. *Journal of Adolescent Health*, 30, 229-232. doi: 10.1016/S1054-139X(01)00391-3

Krueger, R.F., Derringer, J., Markon, K.E., Watson, D., & Skodol, A.E. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM-5. *Psychological Medicine*, 42, 1879-1890.

LaBrie, J.W. & Earleywine, M. (2000). Sexual risk behaviors and alcohol: Higher base rates revealed using the unmatched count technique. *The Journal of Sex Research*, 37(4), 321-326, doi: 10.1080/00224490009552054.

Latzman, R. D., Vaidya, J. G., Watson, D., & Clark, L. A. (2011). Components of Disinhibition (vs. Constraint) differentially predict aggression and alcohol use. *European Journal of Personality*, 25, 477–486. http://dx.doi.org/10.1002/per.821.

McCarthy, D.M.; Kroll, L.S.; & Smith, G.T. (2001). Integrating disinhibition and learning risk for alcohol use. *Experimental and Clinical Psychopharmacology*, 9(4), 389-398. doi: 10.1037/1064-1297.9.4.389.

Saunders, J.B., Aasland, O.G., Babor, T.F., De La Fuente, J.R., & Grant, M. (1993). Development of the alcohol use disorders identification test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption - II. *Addiction*, 88, 791-804.

Temple, M. T., & Leigh, B. C. (1992). Alcohol consumption and unsafe sex- ual behavior in discrete events. *The Journal of Sex Research, 29,* 207-219.

Turchik, J. A., & Garske, J. P. (2009). Measurement of sexual risk taking among college students. *Archives of Sexual Behavior*, 38(6), 936–948. doi: 10.1007/s10508-008-9388-z.

Whiteside, S. P., & Lynam, D. R. (2009). Understanding the role of impulsivity and externalizing psychopathology in alcohol abuse: Application of the UPPS impulsive behavior scale. *Personality Disorders: Theory, Research, and Treatment, S*(1), 69-79. doi:http://dx.doi.org/10.1037/1949-2715.S.1.69

ACADEMIC VITA

Gabrielle Shishkoff

gshishkoff@gmail.com
37 Lorraine Metcalf Rd.
Franklin, MA 02038

_____

EDUCATION
The Pennsylvania State University, expected graduation May 2014
The Schreyer Honors College
    Bachelor of Arts in Psychology, expected with honors
    Minor: Women's Studies

RESEARCH EXPERIENCE
Research Assistant *August 2012-May 2014*
Penn State Smoking Research Lab
Principal Investigator: Stephen Wilson, Ph.D., University of Pittsburgh
- Worked directly with participants through screening, surveying, and providing informed consents
- Guided participants through Balloon Analogue Risk Task (BART) to measure trait impulsivity
- Performed regression analysis on data for research
- Recorded and tracked data using Excel
- Measured participants' carbon monoxide levels using a portable Ecolyzer

PROFESSIONAL EXPERIENCE
Senior Outreach Coordinator *May 2013-August 2013*
The Massachusetts Breast Cancer Coalition; Franklin, MA
- Guided participants through online registration process, and accommodated specific needs of over 200 individuals
- Coordinated activities of approximately 30 volunteers and delegated tasks to 7 interns for charity event setup
- Became proficient in use of fundraising software and used it to compare financial statistics with previous years; prepared explicit instructions on use of software
- Developed new strategy of reaching out to related organizations using social media to publicize fundraising events, leading to approximate 10% increase in participants

HONORS AND AWARDS
Capital One Academic All-District At-Large selection, *2013*
Dean's List, Penn State University, *Fall 2010-Spring 2014*
Academic All-America NCAA Provisional Qualifier, *2013*
The President's Freshman Award, *Spring 2011*
Academic All-Big Ten, *2011, 2012, 2013*

ASSOCIATION MEMBERSHIPS/ACTIVITIES
Penn State Varsity Swim Team, *August 2010-May 2014*

Phi Beta Kappa Honors Society, *April 2013*
Penn State Student Advisory Board (SAAB), *August 2010-May 2014*

PUBLICATIONS AND PAPERS
Completed an empirically researched undergraduate thesis on the relationship between personality, alcohol use, and risky sexual behavior