

AN ABSTRACT OF THE THESIS OF

Jennifer M. Jones for the Master of Science

in Psychology presented on April 11, 2001

Title: Problem Drinking and Sensation Seeking Among College Students

Abstract approval: 

Problem drinking or binge drinking is an all too common subject in college settings, leading to negative consequences for the binge drinkers and those within their environment. In an attempt to find a connection between binge drinking, this study investigated the relationship between problem drinking and sensation seeking. Problem drinking was defined using Michigan's Alcoholism Screening Test (MAST) and self-reported drinking behavior the week prior to data collection. Having five or more drinks in five hours or less constituted binge drinking. Sensation seeking was determined by scores on Zuckerman's Sensation Seeking Scale Form V. The 38 male and 31 female, volunteer participants completed MAST, SSS-V, and a demographic form. Several statistical analyses were utilized to analyze the data. Results indicated that more men than women binge drink and sensation seek. There was also a positive correlation between the MAST and the Total sensation seeking score, and the only subscale significantly correlated with the MAST was the Disinhibition subscale. This same subscale is also positively correlated with binge drinking.

PROBLEM DRINKING AND SENSATION SEEKING
AMONG COLLEGE STUDENTS

A Thesis

Presented to

the Department of Psychology and Special Education

EMPORIA STATE UNIVERSITY

In Partial Fulfillment

of the Requirements for the Degree

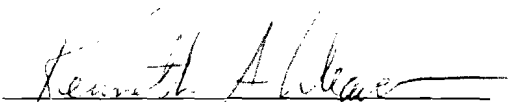
Master of Science

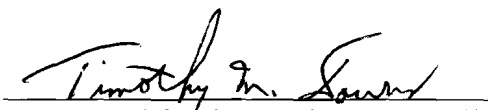
by

Jennifer M. Jones

May 2001

Thesis
2001
J


Approved for the Department of
Psychology and Special Education


Approved for the Graduate Council

ACKNOWLEDGMENTS

I would like to take this opportunity to thank those in my life that have contributed to my success thus far. My husband, Darrin Caldwell, has given me unconditional positive regard. In addition to that, he has given me the space to sprawl out my things, lots of technical support with the computer, a listening ear even though he may not have understood the topic, and not complaining when my household chores fell behind. I owe my parents, Steve and Pam, a big thanks for allowing me the freedom to pursue my educational dream. I am grateful to my friend, Becky, who helped me in numerous ways. She would over-pay me to clean her house and have me to dinner. Being the novel reader she is, she was also able to help me with my grammar skills. My grandparents, Lyle and Betty Jones, and Dale Hodges (deceased), also deserve some thanks. Although not directly related to my education, when I needed a pat on the back, a kiss on the cheek, or a five-dollar bill, I knew I could go to them.

Gratitude also goes to all my professors. Thanks to Dr. Kurt Baker for seeing me through my education. As my advisor, professor, and now on my thesis committee from California, he was able to see me through from the time I was a freshman to the completion of my thesis. The continuity was awesome. A world of thanks goes to Dr. Kenneth Weaver who so willingly took on my thesis as the committee chair when Dr. Baker moved to California. He also had the patience to walk me through statistics and SPSS, again. His positive feedback was encouraging. Finally, SEKMHC gets a huge thanks for giving me a chance and having faith I could get the job done!

TABLE OF CONTENTS

ACKNOWLEDGMENTS	iii
TABLE OF CONTENTS.....	iv
LIST OF TABLES	vi
<u>CHAPTER</u>	
1 INTRODUCTION	1
What is Problem Drinking	1
Frequency of Student Binge Drinking	2
Reasons for Binge Drinking.....	2
Consequences of Binge Drinking	4
Sensation Seeking	5
Sensation Seeking Scale	6
Alcohol Use and Gender Differences with the Sensation Seeking Scale	6
Summary	7
Hypothesis.....	8
2 METHOD	9
Participants.....	9
Materials	9
Consent Form.....	9
Demographics	9
Sensation Seeking Scale	9
Michigan Alcoholism Screening Test.....	10
Script.....	11

Procedure	11
3 RESULTS	13
4 DISCUSSION	19
REFERENCES	24
APPENDICES	
Appendix A: Informed Consent Document	27
Appendix B: Demographics.....	28
Appendix C: Interest and Preference Test Form V	30
Appendix D: Michigan Alcoholism Screening Test.....	34
Appendix E: Script.....	36

LIST OF TABLES

<u>TABLE</u>	<u>PAGE</u>
1 Frequencies for Gender and Binge Drinking	14
2 Means and Standard Deviations of Total Score by Gender	16
3 Correlations Between Binge Drinking and the Sensation Seeking Scale's Subscales and Total Score	17
4 Correlations Between the MAST Score and the Sensation Seeking Scale's Subscales and Total Score	18

CHAPTER 1

INTRODUCTION

Effective prevention is preferable to intervention. Society prioritizes early identification of hereditary diseases so those at-risk can take action to lessen the chances of obtaining the disease. Identifiable characteristics that lead to binge drinking needs the same priority. College students at risk for binge drinking need information and prevention techniques in order to keep themselves from abusing alcohol. Avoiding the serious problems from binge drinking through prevention will substantively benefit the individual and society.

Prevention requires identifying those at risk. The Sensation Seeking Scale (SSS) may be a useful assessment because it correlates positively with alcohol use. However, does it correlate with binge drinking? Even though correlation does not prove cause and effect, a statistical link between SSS and binge drinking would establish a basis for identifying at-risk college students early and thereby enabling more effective prevention efforts.

Review of the Literature

What is Problem or Binge Drinking?

When alcohol consumption becomes “an extended bout of drinking...in which the person neglects other activities in order to drink” (Carpenter, 1998, p. 1), then the person is problem or binge drinking. Wechsler and Isaac (1991) have defined problem or binge drinking as having five or more drinks in one episode, but there is no time frame for the episode. Brown (1979) defines problem or binge drinking as a score of 4-10 on the

Michigan Alcoholism Screening Test (MAST). Thus, problem or binge drinking is having five or more drinks in five hours or less or a score of 4-10 on the MAST. The problem or binge drinkers are experiencing the effects of the alcohol because they are consuming alcohol faster than their body can metabolize the drinks, thus increasing blood alcohol content (BAC).

Frequency of Student Binge Drinking

Consistently similar statistics from four studies indicate that almost all (84%-92.4%) college students consume alcohol (Heck, Presnell, & Williams, 1992; Wechsler & Isaac, 1991; Wechsler, 1996). Using Wechsler and Isaac's (1991) definition of binge drinking as having five or more drinks in one episode, binge drinkers comprised 57.4% of the men and 35.5% of the women respondents. Heck et al. (1992) reported that 33.6% of University of Kansas students were binge drinkers. A 1993 national survey reported that 50% of male respondents and 39% of female respondents were binge drinkers (Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994). Wechsler (1996) reported that out of 17,000 students from 140 campuses nationwide, 44% qualified as binge drinkers. Across four surveys spanning almost a decade, 30% to 50% of respondents are binge drinkers with more men than women engaged in this behavior.

Reasons For Binge Drinking

Half of the college students Wechsler and Isaac surveyed reported consuming alcohol to relax (1991). Forty percent of men and 37% of women drink to feel less tense in social situations. Using alcohol to overcome social fears (e.g., dancing, unfamiliar social gathering, school or family reunion) is highly likely because alcohol in moderation

is a tension reducer (Kalat, 1999). By lowering a person's inhibitions, alcohol gives them the courage to socially engage others. However, Wechsler and Isaac indicated that more than a third of respondents drink alcohol to get drunk (1991).

Another reason for binge drinking is conformity or social learning. Walker and Aviola (1991) suggest that college students' desire to "fit in" with peers is heightened by a need to gain acceptance and belong. This means accommodating one's behavior to resemble that of peers. Zuckerman (1983) showed 6% to 17% drink alcohol to "relate better to friends" (p. 202). Wechsler and Isaac (1991) found that nearly two thirds of respondents reported that their best friends drink and that many (41% of men and 21% of women) of these best friends are binge drinkers.

Those students particularly at risk for binge drinking due to conformity appear to be those who live in fraternity and sorority houses and on residence halls (Riordan & Dana, 1998; Walker & Aviola, 1991). Of 140 campuses nationwide, 80% of women who lived in a sorority house and 86% of men who lived in a fraternity house were binge drinkers (Wechsler, 1996).

Do college students base their drinking behavior on their perceptions of their peers' drinking behavior? Baer, Tapert, and Marlatt (1992) showed that students overestimate others' drinking. If students strive for the norm in their drinking behavior and overestimate it, their drinking is likely to be excessive and they will see themselves as having no drinking problem (Baer et al., 1992). "Having perceived heavy or binge drinking as the 'usual' behavior of their peers, they may have been more likely to engage in this 'typical' behavior" (Hains & Spear, 1996, p. 134).

Consequences of Binge Drinking

The consequences of binge drinking include verbal arguments, hangovers, regret, blacking out, impaired school or work performance, and medical attention due to overdose or injury (Heck et al., 1992; Wechsler et al., 1994; Wechsler & Isaac, 1991). Prolonged binge drinking also produces liver damage, impaired memory and motor control, and alcoholism (Kalat, 1999). Unfortunately, bingeing does not only affect the drinker. Friends, family, and even strangers experience verbal, physical, and sexual assaults; property damage; and interrupted sleep due to the drinker's actions (Heck et al., 1992; Wechsler et al., 1994). Wechsler (1996) found that 62% of respondents living on campus experienced one or more of these negative "secondhand binge effects" (p. 4).

In 1990, the US Department of Health and Human Services reported alcohol as the leading contributor of accidental deaths (Wechsler et al., 1994). One alcoholic drink (12 fluid ounces of beer, 5 fluid ounces of wine, or 1.5 fluid ounces of 80-proof distilled spirits) has approximately .5 fluid ounces of alcohol which the human body metabolizes in one hour. Consuming faster than one drink per hour exceeds the body's capacity for processing the alcohol, thus increasing blood alcohol content (BAC). For example, if a 130 pound woman drinks five beers in two hours, her BAC would approximately be .15. This is higher than the .10 BAC that most states have established for a driving under the influence conviction. Thirty-five percent of all freshmen respondents had ridden in a car with a drunk driver, and 18.7% of male freshmen reported driving after binge drinking (Wechsler & Isaac, 1991). More recently, Wechsler (1996) found that 40% of male respondents drove after binge drinking. Harm for the binge drinker comes from sources

other than car accidents. Falls, suffocation from inhaling vomit, and poor judgement (e.g., sleeping outside in cold weather) also cause health problems.

An increasing threat to students' lives is contracting acquired immunodeficiency syndrome (AIDS) or other sexually transmitted diseases through unsafe sex. Wechsler et al. (1994) revealed that 41% of frequent binge drinkers (binging 3 or more times in two weeks) engaged in unplanned sexual activity, and 22% of these did not use protection. Wechsler (1996) found 26% of women respondents experienced an unwanted sexual advance due to men's binge drinking. Risky sex is another consequence of abusing alcohol (Heck et al., 1992; Wechsler & Isaac, 1991).

Sensation Seeking

"Sensation seeking is a trait defined by the need for varied, novel, and complex sensations and experiences and the willingness to take physical and social risks for the sake of such experience" (Zuckerman, 1979). Risk includes physical or mental harm (shame, guilt, embarrassment, or humiliation) as well as punishment.

Individuals have their own normal level of need for biological and psychological stimulation. Since sensation seekers tend to produce lower endorphins, they must seek out risky experiences to generate more endorphins to maintain an optimal level of arousal (Zuckerman, 1983). High sensation seekers' optimal level of arousal may be higher than low sensation seekers. Zuckerman (1979) found that sensation seekers tend to choose occupations that involve variety, unpredictability, or physical risk (i.e., crisis intervention worker or air-traffic controller). He also found they tend to be involved in unusual experimental procedures (i.e., sensory deprivation, meditation, and hypnosis) and risky

sports (i.e., mountain climbing, parachuting, and scuba diving), and they speed or drive recklessly. Other characteristics included experimenting with sex, drugs (including alcohol and tobacco), and new foods (Zuckerman, 1979).

Sensation Seeking Scale. Zuckerman (1979) developed the Sensation Seeking Scale (SSS) to identify levels and types of sensation seeking. There have been five revisions to the original 1964 scale. Form V, published in 1978, has been the most widely used SSS form. It consists of 40 items, equally divided into four subscales each measuring a different type of sensation seeking. The subscales are Thrill and Adventure Seeking (TAS), Experience Seeking (ES), Disinhibition (Dis), and Boredom Susceptibility (BS). Each subscale produces its own score ranging 0-10, with each of the 10 items receiving one point if positive towards sensation seeking. The Total Score, ranging from 0-40, is the sum of all four subscales scores (Zuckerman, 1994).

Alcohol Use and Gender Differences with the Sensation Seeking Scale

Because the sensation seeker needs varied and complex sensations and experiences to maintain an optimal level of arousal, alcohol can be used in a self-medicating fashion to meet this need. Kissen (1972) showed that sensation seekers may be drawn to alcohol in low to moderate amounts because it creates a disinhibiting, exciting, or euphoric effect by depressing cortical and limbic inhibitory centers (Zuckerman, 1979).

Bates, Labouvie, and White (1985) identified sensation seeking as being partially related to the relative intensity of a variety of drug-using behaviors, where the need for arousal or new experiences becomes a “motivational determinant” for drug-taking

behaviors (p. 16). This means that those identified as high sensation seekers would use alcohol and/or drugs to obtain arousal or new experiences. Zuckerman (1972) found both male and female high sensation seekers to drink alcohol more than low sensation seekers. Schwarz, Burkhart, and Green (1978) reported that drinking in college students is correlated (.59) with disinhibited sensation seeking and minimally related to anxiety. And again in 1983, Zuckerman found the SSS-IV Dis subscale to be correlated with alcohol use .47 for men and .43 for women.

Although Zuckerman's initial studies looking for gender differences using Form II did not find any differences, later studies with improved forms did find differences (1979). Men were significantly higher sensation seekers than women on all scores except ES (Zuckerman, 1979).

Summary

“The issue of alcohol consumption among college students is complex” (Walker & Avioli, 1991, p. 18). By determining if sensation seeking is related to binge drinking, screening and prevention programs for binge drinking can be developed. This research project could provide a starting point for colleges to identify in conjunction with other assessments (e.g. interview, Substance Abuse Subtle Screening Inventory) incoming students who may be at risk. “Can we accomplish our mission and fulfill our students’ goals if we tolerate behavior that compromises the quality of students’ educational and social lives, as well as their health and safety?” (Wechsler, 1996, p. 23).

Hypotheses

The present study investigated the following hypotheses:

Hypothesis 1: More men, relative to women, would be binge drinkers (having more than one drink per hour and at least five or more drinks).

Hypothesis 2: Men would have higher Total Scores than women.

Hypothesis 3: More binge drinkers would score 4-10 on the MAST than non-binge drinkers.

Hypothesis 4: SSS-V's Disinhibition subscale would be positively correlated with binge drinking.

Hypothesis 5: High sensation seekers would also be binge drinkers.

Hypothesis 6: The MAST score would be positively correlated with the Total Score.

CHAPTER 2

METHOD

Participants

The sixty-nine participants ($n = 38$ men and $n = 31$ women) were freshmen, sophomores, and juniors with ages ranging from 18 to 20 years of age. Due to the difficulty in adhering to the guidelines for random sampling, this research utilized convenience sampling. The procedure for convenience sampling already established at Emporia State University was followed.

Materials

Consent form. The consent form (see Appendix A) was adopted from Emporia State University's guidelines for research involving human participants. The consent form specifically informs participants about the procedures and the expectations as well as their right to withdraw at any time without prejudice.

Demographics. The demographics form (see Appendix B) enabled the researcher to classify students as to age, school classification, gender, residence, cigarette use, and handedness. Finally, in an attempt to classify students drinking patterns, one question asked participants to report the number of alcoholic drinks consumed per day within the last week as well as the time frame in which they were consumed.

Sensation Seeking Scale. The SSS Form-V was developed to measure individuals' differences in their optimal level of stimulation (see Appendix C). The first form of the scale was developed in 1961. Through further testing and subsequent improvement Form-V was developed in 1978. Its modification using more familiar terms

for the current generation was used in this research (Zuckerman, 1994). It is a 40-item, forced choice questionnaire and the participants are instructed to “choose the one which better describes your likes or feelings” (Zuckerman, 1979, p. 380). The reliability coefficient alpha for SSS-V is .75. The four 10-item subscales measure different types of sensation seeking. Zuckerman (1972, p. 155) described them as:

1. Thrill and Adventure Seeking (TAS): a desire for activities or sports involving speed, moderate danger or adventure-that is, driving fast, parachute jumping.
2. Experience Seeking (ES): seeking new experience through music, art, drugs, unconventionality in dress or behavior.
3. Disinhibition (Dis): seeking sensations by casting off inhibitions-that is, wild parties, drinking, sexual variety.
4. Boredom Susceptibility (BS): a dislike for repetitious experience of any kind and a desire for change and novelty in things and people.

Each subscale produces its own score ranging from 0-10, with each of the 10 items receiving one point if positive towards sensation seeking. The Total Score, ranging from 0-40, is the sum of all four subscale scores (Zuckerman, 1994).

Michigan Alcoholism Screening Test. The MAST (see Appendix D) is a quick and effective screening tool for alcohol-related problems and alcoholism administered to several populations including college students (Connors & Tarbox, 1985). Selzer developed this 25 “yes” or “no” item questionnaire in 1971. Although initially designed

to be a verbally administered test, it is also reliable (.95) and valid (.79) in a self-administered form (Selzer, Vinokur, & Rooijen, 1975). A response in the alcoholic direction scores a weighted point of one, two, or five. These points are then added to get the MAST score. The total score is 53. The original scoring of the MAST was sensitive with a score of five or greater indicating alcoholism. Selzer et al. (1975) revised the scoring to non-alcoholic (0-4), suggestive alcoholism (5-6), and alcoholism (7+). Brown (1979) revised the scoring further by indicating problem drinking as reflected by a score range of 4-10. Brown based his revision on a study using alcoholics, psychiatric patients, convicted drinking drivers, and social drinkers. The present study used a modified version of the MAST, scoring the original questions according to Brown's (1979) definition of problem drinking, but still using the 4-10 score range to indicate problem drinking.

Script. The script (see Appendix E) from which the 25 year old Caucasian female researcher read for each testing session was designed to minimize experimenter characteristics. This script includes an introduction of the data collector and the reasons for the research as well as a reminder of the researcher's expectations for the participants and the time necessary to complete all assessments. The informed consent was read aloud.

Procedure

Once approval was granted by the Institutional Review Board for Treatment of Human subjects (IRB), the researcher began collecting data. The participants were run as groups. Once assembled, the researcher read the script for each assessment. A stapled

packet was handed to each participant. The informed consent was the first page on all packets. The order of the other materials was counterbalanced to prevent sequencing effects. After the researcher read the informed consent aloud, the researcher requested the participants sign the informed consent if they chose to continue with the assessment. The participants were then instructed to tear off the informed consent page which were collected immediately. The researcher reminded participants to thoroughly read all directions and to ask questions if unsure. After participants completed the instruments, they were thanked for their participation.

CHAPTER 3

RESULTS

The purpose of this study was to investigate problem drinking and sensation seeking among college students. This study utilized self-report of drinking, the Michigan Alcoholism Screening Test (MAST), and Zuckerman's Sensation Seeking Scale-Form V (SSS-V). Although the researcher collected data from 96 student volunteers from a mid-sized, mid-western university, only 69 (38 men and 31 women) of those were complete and used in data analysis.

This study adopted the definition of binge drinking as having five or more drinks in five hours or less. 34.8% of participants were binge drinkers. 47% of men respondents and 19% of female respondents were binge drinkers. Only 11.6% of participants could be categorized as high sensation seekers according to the SSS T-score conversions of 60 or higher on the Total Score. The MAST was scored as a non-problem drinker (0-3) or a problem drinker (4-10). Twenty-nine students or 42% were classified as problem drinkers.

In order to study problem drinking and sensation seeking, several statistical analyses were run. The researcher used a chi square to investigate if more men relative to women will be binge drinkers. It was significant, $\chi^2(1) = 5.91, p < .05$, showing that more men ($n = 18$) were categorized as binge drinkers than women ($n = 6$). See Table 1 for frequencies. This result correlates with past research (Wechsler et al., 1994; Wechsler & Isaac, 1991;). Past research (Zuckerman, 1979) also indicated gender as a factor in sensation seeking.

Table 1

Frequencies for Gender and Binge Drinking

Gender	Non-binge	Binge
Men	20	18
Women	25	6

As predicted by Hypothesis 2, a t test (see Table 2 for means and standard deviations) indicated men had higher sensation seeking scores than women $t(67) = 2.27$, $p < .05$. Unexpectedly, this study was unable to find support for Hypothesis 3 that more binge drinkers score 4-10 on the MAST than non-binge drinkers, $\chi^2(1) = .90$.

Past research (Zuckerman, 1983) has indicated that Disinhibition subscale is correlated with binge drinking. In the present study, Disinhibition and binge drinking were correlated .49, $p < .01$ (see Table 3). Experience Seeking ($r = .26$) and the Total Score ($r = .40$) correlated with binge drinking as well.

As reported, only 11.6% of the participants could be categorized as high sensation seekers. The only scale, including four subscales and one total, that could be analyzed using a chi square was the subscale Thrill and Adventure Seeking, and it was not significant, $\chi^2(1) = .76$. Therefore, Hypothesis 5 that high sensation seekers will also be binge drinkers was not supported.

Hypothesis 6 predicted that the MAST was correlated with the Total Score. Table 4 shows that as the Total Score increased, so did the MAST score ($r = .41$). The only subscale significantly correlated with the MAST was the Disinhibition subscale ($r = .32$).

Table 2

Means and Standard Deviations of Total Score by Gender

Gender	<u>n</u>	<u>M</u>	<u>SD</u>
Men	38	47.50	8.41
Women	31	42.19	11.03

Table 3

Correlations Between Binge Drinking and the Sensation Seeking Scale's Subscales and Total Score

Variable	1	2	3	4	5	6
(N=69)						
1. Binge		.05	.26*	.49**	.20	.40**
2. TAS			.27*	.23	.25*	.65**
3. ES				.49**	.05	.68**
4. Dis					.21	.75**
5. BS						.52**
6. TS						

Note. TAS = Thrill and Adventure Seeking; ES = Experience Seeking; Dis =

Disinhibition; BS = Boredom Susceptibility; TS = Total Score;

Binge = self-report of having five or more drinks in five hours or less during the week prior to data collection.

* $p < .05$

** $p < .01$

Table 4

Correlations Between the MAST Score and the Sensation Seeking Scale's Subscales and Total Score

Variable	1	2	3	4	5	6
(N=69)						
1. MAST		.23	.22	.32**	.23	.41***
2. TAS			.27*	.23	.25*	.65***
3. ES				.49**	.05	.68***
4. Dis					.21	.75***
5. BS						.52***
6. TS						

Note. MAST = Michigan Alcoholism Screening Test; TAS = Thrill and Adventure Seeking; ES = Experience Seeking; Dis = Disinhibition; BS = Boredom Susceptibility; TS = Total Score.

* $p < .05$

** $p < .01$

*** $p < .001$

CHAPTER 4

DISCUSSION

Numerous studies have investigated binge drinking among college students and have indicated that binge drinking occurs in high numbers. These studies done in the early 1990's also indicated that men tend to binge drink more than women. This current study included gender as a variable in binge drinking as well. The present data supported Hypothesis 1 that gender continues to be a variable in binge drinking. Similar to previous studies, 47% of men respondents were binge drinkers. Only 19% of the women respondents were binge drinkers, which is surprisingly lower than the 35-39% found in previous studies.

Baer et al. (1992) reported that students base their drinking behavior on their perceptions of their peers. It could be hypothesized that men who binge drink do so more openly than women and hence are seen binge drinking more regularly. If the theory is correct, this would create a cycle of more men binge drinking more often than women. Similarly, men may also be less likely to hide or minimize this behavior since it has been normalized. They may have been more honest about their drinking behavior than women. All participants were under the legal age to drink alcohol.

Hypothesis 2 predicted that men would have higher Total Scores than women. Zuckerman (1979) theorized this difference to be based on social norms meaning it is more acceptable for men to be involved in risky behavior than women. Since socialization has presumably changed since 1979, it was interesting to learn that men still

have significantly higher Total Scores than women. Does this indicate that socialization has not changed as much as we would like to think?

Hypothesis 3 was an attempt to label participants as problem drinkers without the use of an obvious self report about drinking amount and frequencies. More binge drinkers score 4-10 on the MAST than non-binge drinkers was not supported by the present data. The MAST analyzes a lifetime of drinking behavior and their consequences. The demographics form only collected data related to drinking behavior for the week prior to data collection. Future studies may want to investigate drinking behavior over a longer length of time than one week. The advantage to this would be to measure a pattern of drinking. The disadvantage would be the longer length of time the participant must report about, the more inaccurate the data.

Hypothesis 4, binge drinking is positively correlated with Disinhibition, is supported by the data. Experience Seeking and Total Score were also found to be correlated with binge drinking. Alcohol use had been previously correlated with sensation seeking and the present study made this correlation more specific. Sensation Seeking is not just using alcohol in moderation, its using alcohol at a rate that increases the blood alcohol content. ES has items that specifically inquire about alcohol use. It is uncertain if these could be increasing the significance of the relationship between binge drinking and sensation seeking.

Hypothesis 5, high sensation seekers are also binge drinkers was not supported. Due to the low number of participants who were high sensation seekers, only one analysis could be run for Thrill and Adventure Seeking and it was not significant.

Few high sensation seekers could be due to the participants being from a mid-size, mid-western state university. The participants choose to attend a university that has a smaller population which increases their chance of having the same peers in classes throughout their education. A mid-size town means less bars and parties to attend in which you don't already know most of the other attendants. There are fewer opportunities to engage in sensation seeking behavior. Because the participants choose to attend a university with these characteristics, they may tend to be low sensation seekers as a whole. They may tend to have less of a need to take physical, mental, or social risks than those students who choose to attend a large university in a big city.

The MAST has been used to identify problem drinkers (Brown, 1979). The Sensation Seeking Scale has been correlated with alcohol use (Bates et al, 1985; Kissen, 1972; Zuckerman, 1972; Zuckerman, 1979; Zuckerman, 1983) and now binge drinking. Hypothesis 6 was supported that the MAST score was positively correlated with the Total Score with Disinhibition being the only subscale significantly correlated. This result gives us more insight into the MAST's problem drinker. The data supported that those who were problem drinkers drink to cast off inhibitions or are Disinhibited sensation seekers. They tend to partake in wild parties, drinking, and sexual variety. Since the MAST depicts that problems already exist, prevention is not possible. However, knowing what motivates problem drinkers will help to intervene. Perhaps by channeling the need for sensation seeking into socially acceptable or safer behavior (e.g., non alcoholic parties with dimmed lights, unique sports, costume mixers).

Previous studies linked alcohol use to sensation seeking. The purpose of this study was to find a link between high sensation seeking and binge drinking. If this was accomplished, the data would support using the Sensation Seeking Scale Form-V as a quick and effective tool to screen for possible future problems. This would enable preventive efforts. Although this study was unable to do this, it did raise some interesting questions.

What is binge drinking? An agreed upon definition of binge drinking could not be found in the literature. Wechsler, who has done many studies on alcohol use (Wechsler, 1996; Wechsler et al., 1994; Wechsler & Isaac, 1991), defined binge drinking as having five or more drinks in one episode. The problem is there is no time frame noted. Therefore, a person who drank five beers from Saturday noon to 10:00 pm that night would be considered a binge drinker even though they did not experience effects of increased blood alcohol content. Carpenter (1998), in an attempt to clarify the term binge drinking, defined it as “the combination of prolonged use (usually two or more days) and the giving up of usual activities” (p. 1). The flaw here is the length of use is more characteristic of a chemically dependent person. To obtain the effects of alcohol, you must drink it at a rate that the body cannot metabolize thus increasing blood alcohol content and increasing the effects of the alcohol. This study utilized a combination of these definitions and defined binge drinking as having five or more drinks in five hours or less. This definition does not take into effect gender or weight which effects blood alcohol content.

Across four surveys spanning the 1990's (Heck, Presnell, & Williams, 1992; Wechsler, 1996; Wechsler et al., 1994; Wechsler & Isaac, 1991), 30% to 50% of respondents were binge drinkers with more men than women engaged in this behavior. The current data from a new decade supported that binge drinking continues to be a dilemma in the universities. Despite prevention efforts like education and deterrent programs like banning alcohol at fraternities and sororities, almost 35% of respondents were binge drinkers. Are current prevention efforts and deterrent programs effective? Are they gender biased?

If students aren't binge drinking due to sensation seeking, then why are they risking so much to drink? University dorms do not allow under age students to possess or consume alcohol. Fraternities and Sororities have banned alcohol from their functions. The financial cost for alcohol related criminal charges (e.g., minor in possession, minor under the influence, driving while intoxicated) is a burden for the average college student. Yet, students still partake in drinking activities whether of legal age or not. Is there an emotional component to binge drinking? Studies have investigated alcohol use in regards to relaxation, overcoming social fears, and now sensation seeking. Wechsler and Isaac (1991) reported that over a third of respondents drink alcohol to get drunk. Further investigation needs to be done to find out the motivational determinants for college students alcohol use in order to curb their binge drinking behavior.

REFERENCES

- Baer, J., Tapert, S., & Marlatt, A. (1992). Biases in the perception of normative alcohol use over time: Perceived norms predict future drinking. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism. (ERIC Document Reproduction Service No. ED 357 298)
- Bates, M. E., Labouvie, E. W., & White, H. R. (1985). A longitudinal study of sensation-seeking needs and drug use. Rockville, MD: Center of Alcohol Studies. (ERIC Document Reproduction Service No. ED 263 456)
- Brown, R.A. (1979). Use of Michigan Alcoholism Screening Test with hospitalized alcoholics, psychiatric patients, drinking drivers, and social drinkers in New Zealand. The American Journal of Drug and Alcohol Abuse, 6, 375-381.
- Carpenter, J. (1998). Back to school and binge drinking on college campuses. Recovery [On-line], 1. Available: <http://www.stuaff.niu.edu/uhs/ACABinge.htm>
- Connors, G., & Tarbox, A. (1985). Michigan Alcoholism Screening Test. In D. Keyser & R. Sweetland (Eds.), Test critiques: Vol. 3. United States of America: Test Corporation of America.
- Haines, M., & Spear, S. (1996). Changing the perception of the norm: A strategy to decrease binge drinking among college students. Journal of American College Health, 45, 134-140.
- Heck, E., Presnell, M., & Williams, M. (1992). A study reexamining alcohol use among University of Kansas students. Kansas University, Lawrence, KS: Department of Counseling Psychology. (ERIC Document Reproduction Service No. ED 352 575)

Kalat, J. W. (1999) Introduction to psychology (5th ed.). Boston: Wadsworth Publishing Company.

Kissin, B. (1972). Alcohol as it compares to other addictive substances. In W Keup (Ed.), Drug abuse: Current concepts and research (pp. 251-262). Springfield, IL: Charles C Thomas.

Riordan, B.G. & Dana, R.Q. (1998). Greek letter organizations and alcohol: problems, policies, and program. Retrieved June 3, 2000, from New directions for student services on-line database (First Search, BEDI98010524).

Schwarz, R.M., Burkhart, B.R., & Green, B. (1978). Turning on or turning off: Sensation seeking or tension reduction as motivational determinants of alcohol abuse. Journal of Consulting and Clinical Psychology, 46, 1144-1145.

Selzer, M., Vinokur, A., & Rooijen, L. (1975). A self-administered short Michigan alcoholism screening test (SMAST). Journal of Studies on Alcohol, 36, 117-126.

Walker, M., & Avioli, P. (1991). College students' perceptions of their misuse of alcohol. Piscataway, New Jersey: (ERIC Document Reproduction Service No. ED 343 480)

Wechsler, H. (1996). Alcohol and the american college campus. Retrieved June 3, 2000 from Change on-line database (First Search, 02923425).

Wechsler, H., Davenport, A., Dowdall, G., Moeykens, B., & Castillo, S. (1994). Health and behavioral consequences of binge drinking. JAMA, 272, 1672-1677.

Wechsler, H., & Issac, N. (1991). Alcohol and the college freshman: "binge" drinking and the associated problems. A report. Washington, DC: AAA Foundation for Traffic Safety. (ERIC Document Reproduction Service No. ED 354 791)

Zuckerman, M. (1972). Drug usage as one manifestation of a "sensation-seeking" trait. In W Keup (Ed.), Drug abuse: Current concepts and research (pp.154-163). Springfield, IL: Charles C Thomas.

Zuckerman, M. (1979). Sensation seeking: Beyond the optimal level of arousal. Hillsdale, NJ: Lawrence Erlbaum Associates.

Zuckerman, M. (1983). Sensation seeking: The initial motive for drug abuse. In E. Gottheil, K. Druley, T. Skoloda, & H. Waxman (Eds.), Etiologic aspects of alcohol and drug abuse (pp. 202-220). Springfield, IL: Charles C. Thomas.

Zuckerman, M. (1994). Behavioral expressions and biosocial bases of sensation seeking. United States of America: Cambridge University Press.

Appendix A

INFORMED CONSENT DOCUMENT

The Division of Psychology and Special Education at Emporia State University supports the practice of protection for human subjects participating in research and related activities. The following information is provided so that you can decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time, and that if you do withdraw from the study, you will not be subjected to reprimand or any other form of reproach.

You are invited to participate in a study investigating the relationship between sensation seeking and alcohol consumption. As a participant, you will complete a 40 question scale inquiring into your interests and preferences. You will also complete a 32 item questionnaire about alcohol use and consequences. Finally, you will complete some demographic information along with a question about your alcohol consumption. It will take approximately 30 minutes to complete all items.

There are not any foreseeable discomforts or risks related to being a participant in this study. Information obtained in this study will be identified only by code number. Your name will be used only to indicate that you participated in the study so you may receive credit for your Introduction to Psychology class. All information requested is crucial to the outcome of this study, so only those that are 100% complete can be utilized. Please give one answer to every question.

" I have read the above statement and have been fully advised of the procedures to be used in this project. I have been given sufficient opportunity to ask any questions I had concerning the procedures and possible risks involved. I understand the potential risks involved and I assume them voluntarily. I likewise understand that I can withdraw from the study at any time without being subjected to reproach."

Print Name

Sign Name

Date

Introduction to Psychology Instructor _____

Appendix B

DEMOGRAPHICS

Please circle one answer to the following questions.

1. Age: **18 19 20** 2. Year in School: **freshman sophomore junior**

3. Gender: **male female** 4. Handedness: **left right**

5. Residence: **on-campus** **sorority/fraternity** **off-campus**

6. Cigarette Use: **occasionally** **regularly** **never**

7. How many drinks of alcohol did you consume per day within the last week? If more than eight, please indicate how many. Also indicate how many hours the drinking occasions lasted. If more than nine, please indicate how many.

One drink = *12oz beer* *1.5oz spirits (a shot or mixed drink)* *5oz wine*

Friday

drink/s	0	1	2	3	4	5	6	7	8	—
hour/s	1	2	3	4	5	6	7	8	9	—

Thursday

drink/s	0	1	2	3	4	5	6	7	8	—
hour/s	1	2	3	4	5	6	7	8	9	—

Wednesday

drink/s	0	1	2	3	4	5	6	7	8	—
hour/s	1	2	3	4	5	6	7	8	9	—

Tuesday

drink/s	0	1	2	3	4	5	6	7	8	—
hour/s	1	2	3	4	5	6	7	8	9	—

Monday

drink/s	0	1	2	3	4	5	6	7	8	—
hour/s	1	2	3	4	5	6	7	8	9	—

Sunday										
drink/s	0	1	2	3	4	5	6	7	8	—
hour/s	1	2	3	4	5	6	7	8	9	

Saturday										
drink/s	0	1	2	3	4	5	6	7	8	—
hour/s	1	2	3	4	5	6	7	8	9	

Appendix C

INTEREST AND PREFERENCE TEST FORM V

Directions: Each of the items below contains two choices, A and B. Please indicate *on your answer sheet* which of the choices most describes *your likes* or the way *you feel*. In some cases you may find items in which both choices describe your likes or the way you feel. Please choose the one which better describes your likes or feelings. In some cases you may find items in which you do not like either choice. In these cases mark the choice you dislike *least*.

It is important you respond to *all items* with only one choice, A or B. We are interested only in *your likes or feelings*, not in how others feel about these things or how one is supposed to feel. There are no right or wrong answers as in other kinds of tests. Be frank and give your honest appraisal of yourself.

1. A. I like "wild" uninhibited parties.
B. I prefer quiet parties with good conversation.
2. A. There are some movies I enjoy seeing a second or even a third time.
B. I can't stand watching a movie that I've seen before.
3. A. I often wish I could be a mountain climber.
B. I can't understand people who risk their necks climbing mountains.
4. A. I dislike all body odors.
B. I like some of the earthy body smells.
5. A. I get bored seeing the same old faces.
B. I like the comfortable familiarity of everyday friends.
6. A. I like to explore a strange city or section of town by myself, even if it means getting lost.
B. I prefer a guide when I am in a place I don't know well.
7. A. I dislike people who do or say things just to shock or upset others.
B. When you can predict almost everything a person will do and say he or she must be a bore.
8. A. I usually don't enjoy a movie or play where I can predict what will happen in advance.
B. I don't mind watching a movie or play where I can predict what will happen in advance.

9. A. I have tried marijuana or would like to.
B. I would never smoke marijuana.
10. A. I would not like to try any drug which might produce strange and dangerous effects on me.
B. I would like to try some of the new drugs that produce hallucinations.
11. A. A sensible person avoids activities that are dangerous.
B. I sometimes like to do things that are a little frightening.
12. A. I dislike “swingers” (people who are uninhibited and free about sex).
B. I enjoy the company of real “swingers.”
13. A. I find that stimulants make me uncomfortable.
B. I often like to get high (drinking liquor or smoking marijuana).
14. A. I like to try new foods that I have never tasted before.
B. I order the dishes with which I am familiar, so as to avoid disappointment and unpleasantness.
15. A. I enjoy looking at home movies or travel slides.
B. Looking at someone’s home movies or travel slides bores me tremendously.
16. A. I would like to take up the sport of water-skiing.
B. I would not like to take up water-skiing.
17. A. I would like to try surf-board riding.
B. I would not like to try surf-board riding.
18. A. I would like to take off on a trip with no pre-planned or definite routes, or timetable.
B. When I go on a trip I like to plan my route and timetable fairly carefully.
19. A. I prefer the “down-to-earth” kinds of people as friends.
B. I would like to make friends in some of the “far-out” groups like artists or “hippies.”
20. A. I would not like to learn to fly an airplane.
B. I would like to learn to fly an airplane.
21. A. I prefer the surface of the water to the depths.
B. I would like to go scuba diving.

22. A. I would like to meet some persons who are homosexual (men or women).
B. I stay away from anyone I suspect of being "gay" or "lesbian."
23. A. I would like to try parachute jumping.
B. I would never want to try jumping out of a plane with or without a parachute.
24. A. I prefer friends who are excitingly unpredictable.
B. I prefer friends who are reliable and predictable.
25. A. I am not interested in experience for its own sake.
B. I like to have new and exciting experiences and sensations even if they are a little frightening, unconventional or illegal.
26. A. The essence of good art is in its clarity, symmetry of form and harmony of colors.
B. I often find beauty in the "clashing" colors and irregular forms of modern painting.
27. A. I enjoy spending time in the familiar surroundings of home.
B. I get very restless if I have to stay around home for any length of time.
28. A. I like to dive off the high board.
B. I don't like the feeling I get standing on the high board (or I don't go near it at all).
29. A. I like to date members of the opposite sex who are physically exciting.
B. I like to date members of the opposite sex who share my values.
30. A. Heavy drinking usually ruins a party because some people get loud and boisterous.
B. Keeping the drinks full is the key to a good party.
31. A. The worst social sin is to be rude.
B. The worst social sin is to be a bore.
32. A. A person should have considerable sexual experience before marriage.
B. It's better if two married persons begin their sexual experience with each other.
33. A. Even if I had the money I would not care to associate with flighty persons like those in the "jet set."
B. I could conceive of myself seeking pleasure around the world with the "jet set."
34. A. I like people who are sharp and witty even if they do sometimes insult others.
B. I dislike people who have their fun at the expense of hurting the feelings of others.
35. A. There is altogether too much portrayal of sex in movies.
B. I enjoy watching many of the "sexy" scenes in movies.

36. A. I feel best after taking a couple of drinks.
B. Something is wrong with people who need liquor to feel good.
37. A. People should dress according to some standards of taste, neatness, and style.
B. People should dress in individual ways even if the effects are sometimes strange.
38. A. Sailing long distances in small sailing crafts is foolhardy.
B. I would like to sail a long distance in a small but seaworthy sailing craft.
39. A. I have no patience with dull or boring persons.
B. I find something interesting in almost every person I talk with.
40. A. Skiing fast down a high mountain slope is a good way to end up on crutches.
B. I think I would enjoy the sensations of skiing very fast down a high mountain slope.

Appendix D

Michigan Alcoholism Screening Test (MAST)

1. Do you feel you are a normal drinker, (by normal we mean you drink less than or as much as most other people)? **Yes** **No**
2. Have you ever awakened in the morning after some drinking the night before and found that you could not remember a part of the evening before? **Yes** **No**
3. Does your significant other (or parents) ever worry or complain about your drinking? **Yes** **No**
4. Can you stop drinking without a struggle after one or two drinks? **Yes** **No**
5. Do you ever feel guilty about your drinking? **Yes** **No**
6. Do friends or relatives think you are a normal drinker? **Yes** **No**
7. Are you always able to stop drinking when you want to? **Yes** **No**
8. Have you ever attended a meeting of Alcoholics Anonymous (AA)? **Yes** **No**
9. Have you gotten into fights when drinking? **Yes** **No**
10. Has drinking ever created problems with you and your spouse (significant other), a parent, or other relatives? **Yes** **No**
11. Has your spouse (significant other) or other family member ever gone to anyone for help about your drinking? **Yes** **No**
12. Have you ever lost friends or girlfriends/boyfriends because of drinking? **Yes** **No**
13. Have you ever gotten into trouble at work or school because of drinking? **Yes** **No**
14. Have you ever lost a job because of drinking? **Yes** **No**
15. Have you ever neglected your obligations, your family, or your work for two or more days in a row because you were drinking? **Yes** **No**
16. Do you ever drink before noon? **Yes** **No**
17. Have you ever been told you have liver trouble or cirrhosis? **Yes** **No**

18. Have you had delirium tremens (DTs), severe shaking, heard voices, or seen things that weren't there after heavy drinking? **Yes No**
19. Have you ever gone to anyone for help about your drinking? **Yes No**
20. Have you ever been in a hospital because of drinking? **Yes No**
21. Have you ever been a patient in a psychiatric hospital or on a psychiatric ward of a general hospital where drinking was part of the problem? **Yes No**
22. Have you ever been seen at a psychiatric or mental health clinic, or gone to a doctor, social worker, or clergyman for help with an emotional problem in which drinking had played a part? **Yes No**
23. Have you ever been arrested, even for a few hours, because of drunk behavior? **Yes No**
(If **Yes**, how many times?)
24. Have you ever been arrested for drunk driving after drinking? **Yes No**
(If **Yes**, how many times?)

Appendix E

Script

Welcome! I'm Jennifer Jones and I'm a graduate student here at ESU. As part of my program, I must complete a thesis that entails data collection and would like to thank you in advance for volunteering. Your name will only be on the Informed Consent which will be separated from the rest of your packet. The other information gathered today will not have any identifying information on them, therefore I ask you to be very honest.

Everyone should have two packets. One says Informed Consent and the other says Interest and Preferences. I am starting with the Informed Consent.

Read Informed Consent

Are there any questions? If you wish to continue, please read the bottom paragraph and fill out the bottom portion and tear it off. I will collect them. Please read all directions and complete the items in the order they are stapled. The Interest and Preference Form is yours to keep but the answers need to be written on the answer sheet provided in the other packet. You may drop off your answer packet here face down as you leave.

If you think you may lose your participation slip that I will hand you later, you must sign this sheet I am passing around.

Any questions? If you have any questions any time, please ask? You may begin.

Permission To Copy Statement

I, Jennifer M. Jones, hereby submit this thesis/report to Emporia State University as partial fulfillment of the requirements for an advanced degree. I agree that the Library of the University may make it available to use in accordance with its regulations governing materials of this type. I further agree that quoting, photocopying, or other reproduction of this document is allowed for private study, scholarship (including teaching) and research purposes of a nonprofit nature. No copying which involves potential financial gain will be allowed without written permission of the author.

Jennifer M. Jones
Signature of Author

May 7, 2001
Date

Problem Drinking and Sensation
Seeking Among College Students

Title of Thesis

Dory Cooper
Signature of Graduate Office Staff

May 7, 2001
Date Received

original