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High Risk Drinking Concerns across College Campuses

And a Look at JMU Programming

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JAMES MADISON UNIVERSITY

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Dedication

This paper is dedicated to Madeleine Dupre, former adjunct professor of Substance Abuse Counseling, for sparking my interest in substance abuse counseling.

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Abstract

The purpose of this project is to take a deeper look at excessive alcohol use in the college setting and to review prevention and support programs and services available for this population in reducing the likelihood of ongoing high risk drinking. This project contains a literature review of emerging adulthood and their developmental tasks, the impact of alcohol on an emerging adult's brain and gender differences that may impact attitudes and decisions about alcohol. In conclusion, this project includes implications for counselors who may want to work in a college setting and provide substance abuse counseling.

Introduction

When it comes to alcohol and college students, the problem isn't addiction. The problem is high risk drinking. While for some students, heavy drinking in their twenties can lead to dependency later in life, what college campuses are more concerned with now is heavy consumption of alcohol and the experience of harmful consequences for students (Wechsler et al. 1994). According to O'Malley and Johnson (2002), over time patterns in student drinking have remained remarkably consistent. For students, especially for full-time students attending a 4-year college, drinking can become a part of the college culture and experience. Surveys collected by the National Institute on Alcohol Abuse and Alcoholism found that almost 60% of college students, ages 18-22, report drinking alcohol in the past month and almost 40% of them report binge drinking in the last 30 days (NIH facts sheet, 2015).

The purpose of this Ed.S project is to take a deeper look at excessive alcohol use in the college setting and review prevention and support programs and services available for this population in reducing the likelihood of ongoing high risk drinking. In order to do this, we have to first understand who emerging adults are and what developmental life tasks they are going through. This paper will explore the impact alcohol has on an emerging adult's brain and gender differences that may impact attitudes and decisions about alcohol.

With alcohol consumption come consequences. When a college student engages in heavy consumption of alcohol, they are more likely to engage in high risk behaviors such as unplanned and unsafe sexual activity, physical and sexual assault, property damage, impaired academic performance, suicidal thoughts, impaired driving, and legal repercussions (Benton et al. 2006). In this Ed.S. project I will also examine the consequences are for high risk drinking for a college student and the community.

It may be that those who hold a positive belief about alcohol's effect on social interactions and those who engage in problematic alcohol use are at a greater risk of experiencing

harmful consequences. For others, using alcohol may be a one-time incident that changes a student's perspective on overconsumption of alcohol for better or worse. Colleges today have a number of programs that are designed to provide protective factors for students, such as educational programming and campaigns designed to inform a student about high risk drinking. In this Ed.S project I will review what programs, services, and campaigns are available to students at James Madison University.

Overview of the Problem

College and drinking have become synonymous. In fact, patterns of drinking in college students have remained consistent over time (Benton et al., 2003; O'Malley and Johnston, 2002; Wechsler et al., 2002). Straus and Bacon (1953) in their book, *Drinking in College*, were among the first to report to college and university administrators that alcohol on campuses was a problem. Since then, a number of large scale survey studies have reported the prevalence and trends in alcohol use among American college students.

Although people consume alcohol for recreational use, research has shown that its use carries with it significant potential for harm (Doweiko, 2012). Binge drinking, for example, is a widespread problem across college campuses. Binge drinking, as defined by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the National Survey on Drug Use and Health (NSDUH), is a pattern of consuming four or more drinks for a female and five or more drinks for a male, over the course of two hours, on a single occasion. Often, high risk behavior is associated with binge drinking. These behaviors can include: death, injury, drunk driving, assault, sexual abuse, unplanned and unsafe sex, academic problems, and suicidal ideation.

According to the National Institute of Health fact sheet (2015), each year an estimated 1,825 college students die from alcohol-related unintentional injuries, including motor vehicle accidents. A blood alcohol level of 0.08% increases the odds of an individual getting into an automobile accident by 1,500% (Doweiko, 2012). Nearly 600,000 students are estimated to be unintentionally injured under the influence of alcohol (NIH, 2015). Alcohol use has been found to

be a factor in 17-53% of falls and 40-67% of all fire-related fatalities (Doweiko, 2012). About 400,000 are estimated to have had unprotected sex and report that they were too intoxicated to know if they consented to having sex (NIH, 2015). In addition, it is estimated that 97,000 college-aged students are victims of alcohol-related sexual assaults or date-rape (2015). There is known association between alcohol use and interpersonal violence among college students (Doweiko, 2012). An estimated 696,000 students are assaulted by another student while under the influence of alcohol (2015).

Looking at these statistics, it is no surprise college campus staff members across our country are concerned and taking steps to provide protective factors, education, and consequences for alcohol consumption on campuses. Although the majority of students come to college already having some experiences with alcohol, there are risk factors in college that can intensify the problem of drinking (NIH, 2015). For example, certain aspects of college life, such as unstructured time and limited interactions with parents and other adults, can lead to an increase in drinking in college students. According to the NIH fact sheet (2015), the first six weeks is a particularly vulnerable time for heavy drinking and alcohol-related consequences for freshman entering a four-year college because of student expectations and social pressures at the start of the academic year. Freshman orientation week activities are designed to keep students busy as they enter their new college life. An examination of such programs, campaigns and education that is offered at James Madison University for freshman and all students on campus will be reviewed. First, a review of the literature will provide a glimpse into emerging adults and developmental factors that play a role in alcohol use and abuse.

Review of the Literature

Developmental Factors: Emerging Adulthood

College-aged students fall into a developmental category called emerging adulthood, according to J.J. Arnett (Broderick & Belwitt, 2010). Emerging adulthood is a time period roughly between the ages of 18 and 25 (2010). Arnett coined the term emerging adulthood after exploring new ways of conceptualizing adulthood through a study on young people (2010). Arnett was said to have suggested that emerging adults are different from adolescence and adults due to their increased identity explorations, self-focus, instability, and optimism, as well as their sense of feeling in-between both adolescence and adulthood (Smith et.al., 2014). While identity exploration has been the developmental task of the adolescent period according to Erik Erikson (Broderick & Blewitt, 2010) and his theory of personality development, others support the neo-Erikson identity status due to emerging adults feeling in between both adolescence and adulthood. Self-focus, according to Arnett (Smith et. al, 2014) is a time in which an individual during the age of 18-25 is focusing inward due to weak commitment to others, such as parents and loosening of social controls. Instability in emerging adults is said to be due to the multiple transitions in housing, relationships, and jobs (2014).

Arnett (2014) hypothesized that due to emerging adulthood being a time of identity exploration, self-focus, and instability, as well as optimism about the future possibilities, this developmental period is expected to be positively associated with substance use, but studies with emerging adult samples are lacking. His hypothesis is that greater leisure time, the lessening of restraints from parents and other commitments during this time in a person's life, as well as a more optimistic outlook on life allows emerging adults to see substance use as something of little consequence (2014). In addition, Arnett recognized this time period in an individual's life as having uncertainties about the future that may lead to a feeling of invulnerability to negative consequences and having a care-free attitude in association with participation in risky behaviors (Sussman & Arnett, 2014). What we do know, however, is that alcohol has been a consistent problem for emerging adults in college.

Results from the 2013 National Survey on Drug Use and Health (U.S. Department of Health and Human Services, 2013) indicate that college students versus non-college students differ in drinking patterns. Emerging adults who were enrolled full-time in college were more likely than their peers who were not enrolled full-time to report current alcohol consumption, and binge or heavy drinking. In 2013, full-time college students reported, 59.4% were current drinkers, 39.0% were binge drinkers, and 12.7% were heavy drinkers. For students not enrolled full time, including part-time and emerging adults not currently enrolled in college, rates were 50.6% for current drinkers, 33.4% were binge drinkers, and 9.3% were heavy drinkers. The survey also indicated that the pattern of higher rates of current alcohol use, binge alcohol use, and heavy alcohol use among full-time college students compared with rates for others aged 18-22 has remained consistent since 2002. What Arnett is hypothesizing in regards to a positive association with substance use, based on these findings, seems plausible, even more so for the college student.

Although not all emerging adults go on to higher education, statistics indicate that the numbers continue to rise (Brodrick & Blewitt, 2010). Today more than 60% of emerging adults attend college, whereas a century ago, only 5% did. The college experience is said to provide emerging adults a unique environment that is in some ways protected from the larger society in which it exists (2010). For college students, a sense of community lies within both on-campus and off-campus housing environments and as well as within the institute itself. In this environment there is typically minimal parental supervision, however, students are also faced with unique academic, behavioral, interpersonal, developmental, and financial demands that are different from emerging adults who are not enrolled in college. As a result college students may be more inclined to use and abuse alcohol as a way to fit into the college perceived lifestyle and feel that sense of community. In a study done in 1983, researchers Shore, Rivers, and Berman took it a step further and found that resistance to peer pressure to drink and the desire to refrain from drinking were more intensely related to college environmental variables than to personal

background variables (Presley, Meilman, & Leichter, 2002). So the college environment itself may be more of a factor in influencing drinking patterns.

Presley, Meilman & Leichter (2002) examined aspects of the college environment that can influence drinking and found that the presence of a Greek system, a strong athletic presence at the college, and the type of housing available at the institution can influence problematic drinking patterns in college students. In a number of studies they compiled, these researchers found that those who were members of a Greek organization were more likely to drink compared to other students. In addition, they found that living in a Greek house, belonging to a Greek organization, or intent to join the Greek system is correlated with higher rates of heavy episodic drinking, frequency in drinking, and more negative consequences than non-Greek students. Wechsler et al. (1997), found that student involvement in athletics is positively associated with heavy drinking and that the strongest predictors of binge drinking among students were those involved in both athletics and a Greek organization. And finally, differences in drinking levels were found to be dependent on where a student resides. The average number of binge drinking episodes were higher for on-campus residents as compared with off-campus residents, and students with the highest levels of consumption and binge drinking episodes were those who lived in a fraternity or sorority house.

The emerging adult not enrolled in a traditional four-year college or for part-time students, they may not face many of the same challenges because many have different responsibilities and less leisure time. For these emerging adults many may have full-time or part-time jobs, families, and other activities that make the experience of being a student much different (O'Malley & Johnston, 2002).

It is worth noting that emerging adults may have an evolving relationship with alcohol. As the college student nears graduation, there may be a shift in their focus and they may actually turn their attention to their academics with less focus on alcohol. Additionally, emerging adults

may find that upon reaching the legal drinking age, the thrill of drinking is lost because it is no longer a prohibited activity for them.

For others, heavy alcohol consumption can lead to further destructive behaviors that can affect the college students academic standing, such as through consequences for drinking on campus, decline in academic performance, and withdrawing from classes. Other consequences for heavy alcohol consumption among emerging adults in general can include death, injury, drunk driving, assault, sexual abuse, unplanned and unsafe sex, and suicidal ideation. There is also the possibility that heavy drinking can lead to dependency behaviors.

Developmental Factors: Gender Differences for Risk and Protective Factors

Gender differences may also play a part in risk and protective factors for college students. Risk taking involves choosing actions that could possibly lead to harmful outcomes and is a more generalized set of attitudes associated with a broad range of activities. Heavy drinking and binge drinking fall under this category of risk due to the consequences it can lead to. Protective factors include developing strategies for engaging in high risk drinking behaviors, such as preparing for avoiding consequences associated with high risk drinking by drinking with friends, drinking in safe environments, and/or using a designated driver (Benton et al., 2006).

Many researchers have found that gender can play a role in risk factors for college students and specifically they have found that men tend to be more at risk than woman. On average, men have been found to consume more alcohol than woman and men experience more harm from alcohol (Benton et al., 2006). Benton et al. (2006) stated that “(m)en tend to be greater risk takers than women, most likely because of the following: (1) societal expectations of the masculine tendency toward risky behaviors and (2) a relatively greater tendency towards sensation seeking” (p. 544). Additionally, studies of college alcohol use have consistently found higher rates of binge drinking among men than woman (Wechsler et al., 1994). However, these studies did not account for sex differences in metabolism of ethanol or in body mass (1994).

In an earlier study done by Benton and associates in 2004, after examination of several gender differences in alcohol use they found that men reported having a greater number of drinks than women, and that women reported using more protective strategies than did men (Benton et al 2004). In their study, men averaged nine drinks, whereas women averaged five drinks per occasion, therefore putting men a greater risk for alcohol related problems (2004).

Some examples of protective factors include drinking in an environment that provides food, drinking with friends, planning a response for refusing a drink, and employing time management and organizational skills to drinking, such as planning a ride and time to leave (Benton et al. 2004). Additionally, Benton and associates (2004) hypothesized that those with higher grade-point average are more likely to engage in health-protective behaviors, such as engaging in exercise in their free time during college, rather than drinking. In their study Benton et al. found that “Men report food to be an effective protector against intoxication, whereas women prefer protection in the presence of friends or roommates” (2004).

In a study of 140 college campuses in the US in 1993, men and women reported similar alcohol-related problems, such as a hangover, missing class, regretful behaviors and engaging in unplanned sexual behaviors. However, men reported more frequency in getting into trouble with campus police or getting charged with property damage (Wechsler et al, 1994). I would suspect this is a result of men being more likely to engage in risk and woman are more likely to employ protective factors, such as by surrounding themselves with friends, who may influence them out of such behaviors of risk. What we can conclude from the research is that men and woman differ in alcohol use and misuse.

Developmental Factors: Influence on the Developing Brain

Some biological developmental changes that take place for emerging adults also have to do with the brain. Research has found that the more rapid the brain is developing, the higher the risk for insult to the brain (Tapert, Caldwell, & Burke, 2005). During the prenatal stage and the

adolescent stage, the brain is doing the most rapid growth. If you take into consideration what Arnett (2010) says about emerging adulthood being a time of prolonged adolescence, learning about the adolescent brain is important in understanding the emerging adult brain. The brain continues to develop throughout adolescence and into young adulthood. Some suggest that insults to the brain during this time of development could have a long-term impact on the brain's function (Tapert, Caldwell, & Burke, 2005), including memory and thinking. Because emerging adulthood is a period when most people make critical educational, occupational, and social decisions, impaired cognitive functioning at this time could substantially affect one's future.

Several studies have suggested that heavy alcohol use during emerging adulthood appears to be associated with detrimental effects on brain development, brain functioning, and neuropsychological performance (Tapert, Caldwell & Burke, 2005). Neuropsychological functions include memory, attention, visuospatial skills, and executive functioning. In addition to neuropsychological functioning, scientific studies on the effects of drinking on the brain of adolescents and emerging adults have looked at imaging of the brain, which have revealed a variety of structural brain abnormalities associated with prolonged and heavy alcohol use (2005). One abnormality in particular is the volume of the hippocampus, which is critical to learning new information and forming memories (2005). In one study, scientists looked at the brain images of adolescents and young adults with and without Alcohol Use Disorders (AUD) and found that the left and right hippocampal volumes were significantly smaller in the youth with AUDs. Because these brain structures are critical to learning and memory formation, impairment to this part of the brain by prolonged heavy drinking may lead to more severe and long-term impairment of memory formation (2005). However, longitudinal studies are necessary to confirm these hypotheses.

In addition to considering brain development, numerous studies have examined the effects of alcohol on the young brain with respect to sensitization (2005). The term "sensitization" refers to the fact that with increasing alcohol use, people may experience an

intensified positive response to alcohol, which may reinforce and thus increase the drinking behavior. Some researchers have hypothesized that young people may be more likely to experience sensitization and therefore may be more likely to consume excessive amounts of alcohol and develop AUDs. This is because their brains are still maturing, and the changes associated with this maturation could enhance the sensitization process (Tapert, Caldwell, & Burke, 2005).

Chambers et al. (2003) proposed a number of reasons why adolescents might be particularly vulnerable to AUDs that are a result of sensitization. This can be applied to emerging adults as well, since we know the brain is still developing well into the 20's (the perceived developmental age of emerging adults). Chambers et al. (2003) agreed that the brain is still maturing and disrupting the maturation process, as discussed above, may lead to long-term damage in brain function. In their research findings on adolescents, individuals in this developmental stage are more likely to engage in impulsive behaviors as the prefrontal cortex, which is still developing, has not yet gained full ability to control impulsive behavior. As a result, during this time adolescents are more prone to poor judgment related to drinking. In addition, one of the effects of consuming alcohol is that the brain releases dopamine, which stimulates the brain's reward system and triggers the desire for further stimulation, resulting in more alcohol use. These factors lead Chambers et al.(2003) to believe that eventually alcohol-related dopamine release may lead to changes in brain development that can lead to sensitization.

Consequences of Alcohol Use/Abuse

Having policies addressing alcohol on college campuses can help reduce alcohol-related problems. Colleges are required to publish their policies relating to alcohol use, state their developed standards, deterrents, and educational programs or resources (Cohen & Rogers, 1997). These can be found in most college handbooks issued and discussed with incoming freshman each year during orientation (1997). In the case of James Madison University (JMU), the subject

university of this review, these policies are located in the JMU Student Handbook online under the Student Accountability and Restorative Practices, formerly known as Judicial Affairs and Restorative Practices. Freshman at JMU are required to live on campus their first year and are subject to a week-long orientation, which includes a review of JMU's policies and procedures on alcohol use.

Like most universities, JMU recognizes that heavy alcohol use or binge drinking pose a danger of serious health and other consequences for alcohol abusers and for others in the immediate environment (Wechsler et al. 1994). Alcohol is said to contribute to accidental death such as in motor vehicle accidents, unsafe and/or unplanned sexual behaviors, unintentional injuries, suicidal ideation and academic problems (Benton et al. 2006). In addition, alcohol may contribute to poor standings in the community and legal repercussions that impact the use of resources from the local community (2006).

While not all students come to college and develop problem-related drinking habits, as we noted with the differences in types of students, however, those that do can have a negative impact on themselves and others. In the Wechsler et al. (1994) study of 140 US colleges in relation to health and behavioral consequences of binge drinking, students were asked questions regarding whether they had experienced the following as a consequence of excessive drinking: a hangover; missed classes; getting behind in school work; having done something they regret; experienced forgetfulness; getting into an argument with friends; engaging in unplanned sexual activity; not used protection when in engaging in sexual activity; engage in property damage; get into trouble with campus police; get hurt or injured; or require medical attention for an alcohol overdose (Wechsler et al., 1994). For students who identified as frequent binge drinkers, there was a strong positive relationship with alcohol-related health and other problems reported by the students. Most frequently the problematic behavior was engaging in unprotected sex, unplanned sex, getting in trouble with campus police, property damage and getting hurt or injured. Nearly half of the frequent binge drinkers identified in this study listed five or more of these problems

since the beginning of the school year, compared with 14% of infrequent binge drinkers and 3% of non-binge drinkers.

Students in the Wechsler et al. (1994) study also answered eight questions regarding problems caused by other students' drinking behaviors. The questions are listed as the following: Have they ever been insulted or humiliated by other students' drinking; had a serious argument with other students who were drinking; been pushed, hit or assaulted by other students who were drinking; had their property damaged; had to care for another student who drank too much; had their studying or sleep interrupted; experienced unwanted sexual advance; or been a victim of a sexual assault or date rape. The study indicated that the students who identified and scored appropriately to be considered non-binge drinkers but were at a school with high binge levels were more likely to experience binge effects. In addition, their study indicated, "the odds of experiencing at least one of the eight problems was roughly 4:1 when students at schools with high binge levels were compared with students at schools with low binge levels (Wechsler et.al., 1994, p. 1676). This study demonstrates the seriousness of health related concerns among binge drinkers for both the drinker and the non-drinker.

The impact that college students leave on local communities with respect to consequences for alcohol misuse is complex and individualized to each community, making national statistics difficult to specify (Flynn & Wells, 2013). This kind of research requires making choices and finding creative ways of assessing the local-level impact of alcohol. Flynn and Wells (2013) reported that the source of the data and how they indicate it will depend on data availability, the purpose of the research (e.g., to provide a community with descriptive data versus evaluation of an intervention) and, in many cases, community support for the research to facilitate access to archival data or cooperation in primary data collection efforts. What was identified in their article was that archival and primary data from alcohol patterns, alcohol availability, alcohol-related health and trauma, and alcohol-related crime can create prevention, treatment, and

enforcement activities at the local level. However, along with this data collection and implementation comes the use of resources and costs to the tax payer.

While examining policies, issues, and practices of JMU on-campus and off-campus housing, the resources being used, as a result of college student's problem-related drinking behaviors, were found in the local news. Following a block party-turned-riot in April of 2010, changes were made in our local community. According to the college newspaper, JMU reportedly employed two police officers to patrol off- and on-campus on weekend nights; Harrisonburg police reported an increase of patrol during typically busy party weekends; undercover Alcoholic Beverage Control (ABC) agents initiated enforcement of illegal "host" behavior at off-campus gatherings; and the university reviewed its three-strike policy to give stricter punishment to students with alcohol violations after their first or second strike (The Breeze, 2010). In addition, representatives from the JMU police, Residence Life, the Student Government Association, Student Ambassadors and other organizations implemented new programming, which included a new program called "Respect Madison" designed to help students cultivate a spirit of respect at JMU. The implementation of these programs and the increase in local resources did not come without a price.

On JMU's Student Accountability and Restorative Practices webpage ("Students and Substance Usage", n.d), alcohol/drug strategies and resources are reviewed under what is called, *The Big Four Alcohol/Drug Strategies*. This includes information about JMU's three strike policy, parental notification, off-campus adjudication, and enlightened citizen amnesty process (ECAP). I will provide a brief overview of each.

JMU's three strike policy states that students will receive a strike if they are found responsible for an incident involving alcohol and/or drugs ("Students and Substance Usage", n.d.) Upon the receipt of the third strike, a student may be suspended for a minimum of one semester. However, a student may be suspended prior to a third strike for violations which pose a health or safety concern to the student or the community. This can include being found distributing drugs,

supplying alcohol to minors, hospitalization due to alcohol or drug use, DUIs and keg registration violations. For students under the legal age of 21, parents will be notified for on-campus cases and upon arrest or citation for an off-campus case.

In addition, alcohol and drug violations, felonies and other student behavior that occurs off campus within the city or surrounding county may be addressed by the Office of Student Accountability and Restorative Practices. However, students who voluntarily report they are in need of medical attention or have medical attention requested by them for a bystander or bystanders who voluntarily report that someone is in need of medical attention due to the consumption of alcohol or drugs may apply to receive amnesty from receiving a strike. All this information and more can be located on the Student Accountability and Restorative Practices webpage on JMU's website.

Along with JMU, many colleges have developed similar policies and strategies to inform and serve consequences to students for problem-related drinking behavior. It is the hope that these policies prevent college students from engaging in alcohol-related problems. Some have said there has been little progress in substance abuse prevention as it is related to policy (Cohen & Rogers, 1997) However, following alcohol policy changes made in 2010, JMU's director of Office of Judicial Affairs was noted in an article saying that alcohol violations decreased from 2010-2011 as a result of policy changes to alcohol (Banting, 2011). Nonetheless, the law is clear about our obligation to inform and enforce these policies (Cohen & Rogers, 1997). Along with these policies come the addition of programming and campaigns that support efforts to educate and hope for the possibility for prevention for alcohol-related problems on college campuses.

Programs and Campaigns

The statistics pertaining to the rates of alcohol use on college campus have remained consistent since the 1970's when this was first reported to be problematic. At this time, substance use education and prevention programs originated and the focus was on the abuse of alcohol. In

the 1990's there was a shift in focus specifically to binge drinking (Cohen and Rogers, 1997). Binge drinking is defined as the consumption of five or more drinks by men and four or more drinks by woman in a sitting (1997). In the 21st century, the definition of binge drinking continues to be refined as public health concerns about young adult binge drinking continues to motivate studies on this subject (Courtney & Polich, 2009). The latest definition includes a time-frame of 'within the past two weeks'. Including both quantity and frequency are important qualifiers for the definition of binge drinking, as are distinguishing between the genders.

Traditionally, colleges have taken an educational approach to decreasing binge drinking by offering educational programs designed to teach refusal skills, enhance self-esteem, increase student awareness of negative consequences associated with binge drinking, and clarifying student values (Pilling and Brannon, 2007). Programs at JMU that are education-based include: AlcoholEdu, BASICS, By The Numbers and Calling The Shots. In addition, there are a number of ways students can get involved in groups and discussions about alcohol use on campus and provide services to prevent alcohol-related problems. These include Campus Coalition on Alcohol Abuse, AA on campus, and SafeRides at JMU.

AlcoholEdu is a two-part evidence-based online alcohol prevention program required for all first-year students prior to the start of freshman year. AlcoholEdu provides incoming students with online interactive feedback about their health associated with alcohol use that strives to aid in behavior change by providing information about alcohol use and its consequences (Wall, 2007). This program is said to develop student skills for functioning safely in a social environment and provide students with opportunities to reflect on how the use of alcohol fits into their lives, prior to and a 4-6 weeks after coming to college. Following a pre-survey of their alcohol attitudes and behavior, students complete a pre-course introduction, five online learning chapters, a journal, two knowledge tests and a post-survey upon immediate completion. This program is linear in that students' progress sequentially through chapters one through five which address alcohol expectancies at JMU; behavioral and legal consequences of excessive use;

education on blood alcohol concentration; and ideas of self-efficacy as related to safe and responsible drinking. The program is customizable in that it creates unique paths addressing gender specific reports of consuming alcohol and abstaining from alcohol and then generates a message of moderating consumption or reinforcing their choice to refrain. The program concludes with a quiz, or test, to assure a minimum level of understanding about alcohol use and consequences. An email is sent to students 4-6 weeks after completing this program asking them to follow-up on their alcohol related attitudes and behaviors after coming to college. In a randomized trial of the course at 30 public and private universities in the United States, researchers found that students who took the online course reported significantly reduced alcohol use and binge drinking the fall semester, compared with control students (Paschall et. al., 2011). According the assistant director at the JMU University Health Center, AlcoholEdu has been used at this university since her employment began six years ago.

BASICS stands for a Brief Alcohol Screening Intervention for College Students (Dimeff et. al, 1999). BASICS are early-intervention programs designed to help students evaluate the risks that may result from using alcohol. This is an empathetic, confidential, non-judgmental program open to students. The program consists of a two- part, 50 minute interview session and feedback report. In the first part a self-assessment of alcohol, behavior, and potential risk is used to identify potential changes to reduce future alcohol-related negative consequences. The second part provides personalized feedback by examining the ongoing consequences of alcohol use and current or previous action plans to reduce alcohol-related risk. Researchers, Murphey et. al. (2001), evaluated the efficacy of BASICS against a single educational intervention, and an assessment only control group. They found that there were no overall significant group differences, but heavier drinking BASICS participants showed greater reduction in weekly alcohol consumption and binge drinking than did heavier drinking education participants and control group participants. Additionally, a meta-analysis of 18 studies on BASICS was done by Fachini et. al. in 2011 and they concluded that overall, BASICS lowered both alcohol

consumption and negative consequences associated with alcohol-related problems in college students. Their study also found that characteristics of BASICS were evaluated as more favorable and acceptable by college students in comparison to other interventions or control conditions.

By The Numbers and Calling The Shots are two Substance Education programs offered through the Office of Student Accountability (OSARP, Feb. 2016 and OSARP, Mar. 2016). By The Numbers is a two-hour program that examines the reason for the establishment of community standards which includes an overview of Virginia laws and university policies (OSARP, Feb. 2016). Students are asked to participate by discussing their personal values and learn about community resources and risk-reduction strategies for avoiding negative consequences of alcohol use. By The Numbers was designed as a two-hour program for minor alcohol violations and who's target population are students who are sanctioned for first time alcohol violations. Calling The Shots is a program designed for students who violate an alcohol policy at JMU (OSARP, Mar. 2016). This is a three-week program guiding students towards making decisions more consistent with their values and in compliance with the law. Harrisonburg and/or JMU police participate in this program to answer students' questions and address risk-reduction strategies. Both By the Numbers and Calling the Shots are programs that OSARP developed "in-house" for their use specifically (OSARP, Feb. 2016 and OSARP, Mar. 2016). The courses carry an associated fee of \$50, billed by OSARP upon completion. In communicating with Assistant Director of Substance Education and Assessment, Robert RJ Oghren, at OSARP, he reports that typically By the Numbers holds 3-4 sessions each week, and Calling the Shots runs about 1 cycle of each month. While assessment measure have not produced results at this time regarding these program's effectiveness, OSARP reports attendance in these programs have been begun to rise in the 2015-2016 academic year. For the 2014-2015 academic year, 354 students attended By the Numbers and 57 students attended Calling the Shots. This year these numbers are already at 401 and 72 with a month and a half left in the semester.

Additionally, the JMU Counseling Center provide resources and support to students through individual and group counseling, consultation, and/or referrals to on-campus and off-campus programming. Although traditional programs may increase knowledge of alcohol and its problem-related effects, these programs frequently do not change actual drinking behavior (Pilling & Brannon, 2007). Nonetheless, educational communities demand colleges to tend to the issue of alcohol abuse and obligate colleges to inform their students about the alcohol policies. In addition to these education-based programs, students can get involved in groups and campaigns for the prevention of alcohol-related problems. The following are descriptions of JMU's student-based groups from the JMU webpage.

The Campus and Community Partnership is comprised of students, faculty, and staff from JMU aid in identifying community needs, selecting key alcohol prevention initiatives, and mobilizing community support ("Campus and Community Partnership" n.d.). This partnership works to identify community needs selects key alcohol prevention initiatives and aids in getting community support to back their initiatives. They can offer financial support to campus and community organizations and agencies who shared in a commitment to develop and maintain safe and healthy campus/community environments. Some examples of their work include: social activities that positively engage youth/students, peer education initiatives, training opportunities for students and staff and efforts designed to build awareness and increase access to community supports.

Alcoholics Anonymous (AA) is a self-help, self-governed group whose primary purpose is to remain alcohol-free in the support of others who have a shared interest (Doweiko, 2012). At the core of AA are the 12 steps in which an individual is suggested to move through to achieve lasting recovery from alcoholism (2012). According to the U.S. Department of Education (2011), "approximately 144,000 adolescents receive treatment for substance abuse problems every year; however this represents only about ten percent out of all who meet accepted diagnostic criteria for at least one substance abuse disorder" (p. 4). Many of these same adolescents enter college

already in, or soon to start, recovery from substance abuse and are in need of recovery programs and supports critical in preventing relapse (Watson, 2014). At present, support services for college students in recovery are few (2014). On JMU's campus AA meets as an open, young person's meeting once a week. It is led by a community member with assistance from the assistant director of substance abuse prevention in the University Health Center, Tia Mann. In talking with the assistant director, it was discovered that this program has a low student involvement. She reported that several students will come into the group once out of curiosity, some come in because they may feel they are having problems with alcohol, and some simply use this experience to bounce back from consequences for alcohol-related problems.

SafeRides is a student run, non-profit organization designated to create a safer community for the city of Harrisonburg. Its members work to prevent drunk driving by educating the JMU community and fundraising to support the mission in providing free rides home for students on Friday and Saturday nights. While the name is original to JMU, this type of organization exists across college campuses in the U.S. (Decina et.al. 2009). Alternative Transportation (AT) programs have been developed as an approach to reduce drinking and driving episodes. These services transport drinker's home from drinking establishments using taxis, privately owned vehicles, buses, tow trucks, and law enforcement agents. Results from two surveys Decina et. al. (2009) performed noted that the AT programs raised awareness among the student populations regarding alcohol use and impaired driving, and provided opportunities that encouraged safe transportation behaviors. According to the Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, and Division of Unintentional Injury Prevention (2016), almost 30 people in the U.S. die in motor vehicle crashes that involve an alcohol-impaired driver each day. In 2014, 9,967 people were killed in alcohol-impaired crashes and in 2014, over 1.1 million drivers were arrested for driving under the influence of alcohol. Young adults between the ages of 21 and 24 who were among drivers with a BAC level of 0.08% or higher accounted for three out of every ten involved in fatal crashes. These statistics

show that having organizations, like SafeRides, in place are very important in keeping the community safe.

With all these programs and organizations on campus and the information about policies and enforcement of them available to students, we continue to see drinking patterns on college campuses remain consistent over the last 40 plus years. While it often seems like going to college and drinking have become synonymous (Benton et al., 2003; O'Malley and Johnston, 2002; Wechsler et al., 2002) we know that emerging adulthood is a time of identity exploration, self-focus, and instability (Smith, Bahar, Cleeland, & Davis, 2014). Although not all college students drink, those who do in excess pose a risk to themselves and others, including the community in which they live. So having policies in place, educational programming available, and student-lead organizations to advocate for a safer community are what is needed on every college campus.

Implications for Counselors

At the very basic level, counselors working in a college setting need to be educated in risks, prevention, and intervention. They need to understand that as an individual's blood alcohol level (BAC) increases, so does risk (Benton et al., 2004). Furthermore, knowing that males are affected differently than females by levels of alcohol reminds us that gender is a significant variable when considering the impact of alcohol. For females, binge drinking is considered to be four or more drinks but for males it is five or more within a two hour period (Benton et al., 2004). Knowing how and where to access this information when necessary is important for counselor in a college setting. Many counseling centers have brochures and materials posted on their website that can provide education to students. A college counselor should know about these and other resources.

College counselors would also benefit from being able to conceptualize the impact of alcohol on the brain and its influence on motivation and risk-related behaviors. In addition, understanding developmental factors that impact an emerging adult that can influence drinking habits adds another important piece to the puzzle. Emerging adulthood is a time of identity

exploration in one's identity, and a time for self-focus and instability. All of these factors can be useful in helping develop an appropriate treatment strategy with clients.

Finally, college counselors need to be able to identify when problem behaviors are developing and what to do about it. Being able to sort through a student's risk and protective factors that can influence their drinking can be of great benefit in talking to a student about their drinking. Knowing how to educate and inform in session may be more effective than making a referral to an outside agency specializing in substance abuse. Given that the high likelihood of college students engaging in drinking and given the lower likelihood of the development of alcohol use disorders at this age, a referral to a substance abuse treatment may be ineffective. Substance abuse treatment providers are typically for individuals who suffer from alcohol use disorders and are in need of intensive services to treat their symptoms and maintain a life of abstinence.

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