The effects of community type and sexual orientation on adolescent alcohol abuse: A retrospective exploration

Karla Beth Moore
moore600@marshall.edu

Follow this and additional works at: http://mds.marshall.edu/etd

Part of the Clinical Psychology Commons, Community Psychology Commons, and the Experimental Analysis of Behavior Commons

Recommended Citation
http://mds.marshall.edu/etd/1067

This Dissertation is brought to you for free and open access by Marshall Digital Scholar. It has been accepted for inclusion in Theses, Dissertations and Capstones by an authorized administrator of Marshall Digital Scholar. For more information, please contact zhangj@marshall.edu, martij@marshall.edu.
THE EFFECTS OF COMMUNITY TYPE AND SEXUAL ORIENTATION ON ADOLESCENT ALCOHOL ABUSE: A RETROSPECTIVE EXPLORATION

A dissertation submitted to
the Graduate College of
Marshall University
In partial fulfillment of
the requirements for the degree of
Doctor of Psychology
in
Clinical Psychology
by
Karla Beth Moore
Approved by
Dr. Keith W. Beard, Committee Chairperson
Dr. Penny Koontz
Dr. April Fugett

Marshall University
August 2017
We, the faculty supervising the work of Karla Beth Moore, affirm that the dissertation, *The Effects of Community Type and Sexual Orientation on Adolescent Alcohol Abuse: A Retrospective Exploration*, meets the high academic standards for original scholarship and creative work established by the Doctor of Clinical Psychology Program and the College of Liberal Arts. This work also conforms to editorial standards of our discipline and the graduate college of Marshall University. With our signatures, we approve the manuscript for publication.

Dr. Keith W. Beard, Department of Psychology  Committee Chairperson  Date

Dr. Penny Koontz, PsyD  Committee Member  Date

Dr. April Fugett, Department of Psychology  Committee Member  Date
ACKNOWLEDGEMENTS

To my committee chairperson, Dr. Keith Beard, I offer heartfelt gratitude for your availability, fresh perspective, and support throughout the entirety of this project. I could not have chosen anyone better to guide me through this process. In times when I needed a break, you allowed for that, and in times when I needed to “get things done,” you pushed me. I am so happy that I answered your “call for research minions” during my second year in the program.

To my committee members, Dr. Penny Koontz (my mentor and supervisor-extraordinaire) and Dr. April Fugett (stats-guru and beach-walking partner), I appreciate you both more than I can say. Thank you for your creative input, flexibility, and support, not only with this project, but throughout my graduate school career. You have each been tremendously influential with my education and professional development.

To the faculty of the Marshall University Psy.D. program and my fellow Psy.D. students, thank you for your support, friendship, and encouragement over the past four years. I give a special shout-out to Dr. Dawn Goel and Briana McElfish who provided incredible guidance towards the onset of this project. Thank you for teaching me “voodoo magic” to work with Amazon’s M-Turk for the first time! Of course, these acknowledgements would not be complete without mentioning the girl who became my other half. Alyssa Frye, thank you for spending long hours on research, class projects, studying, and scheming. Thank you for being the kind of friend that lasts a lifetime.

I thank my parents, Jeff and Susan, for giving me a last name which always forces me to push myself and to strive for “Moore.” Thank you for providing me with everything necessary to succeed in this world and for instilling in me a strong set of values and the passion to be a “helper.” I love you both so much. To my sister and brother, Kayla and Troy, thank you for
helping me live up to my “middle child” glory and for laughing with (at) me when I take things too seriously and for being two of the strongest people I know.

Thank you to all of my family for your support of everything I do. Thank you for sharing the link to my survey on social media and for believing in me. I love you all so much! Mamaw, thank you for being my best friend, for your famous pep talks (which helped me finish this project), and for filling my lunch with all of your delicious left-overs (which also helped me finish this project). I love you!

Finally and most importantly, to my future husband, R.P., your love, support, and willingness to have an incredibly long engagement mean the world to me. When I started the doctoral program, you made a promise to my Dad to help me get through this and you have totally held up your end of the deal. I love you and cannot wait to marry you.
# TABLE OF CONTENTS

Acknowledgements........................................................................................................... iv

List of Tables....................................................................................................................... viii

Abstract............................................................................................................................... ix

Chapter 1: Introduction and Review of the Literature....................................................... 1
  Key Terms......................................................................................................................... 5
  Adolescent Alcohol Use................................................................................................. 7
  Rural vs. Urban Alcohol Use........................................................................................ 10
  Sexual Minority Group Alcohol Use........................................................................... 20
  Past and Current Interventions and Programs............................................................ 25
  Purpose of the Present Study....................................................................................... 28

Chapter 2: Methods............................................................................................................ 30
  Participants..................................................................................................................... 30
  Data Collection.............................................................................................................. 32
  Measures....................................................................................................................... 33
    Demographic Characteristics.................................................................................. 33
    AUDIT-C................................................................................................................... 33
    MDMQ-R.................................................................................................................... 34
    PSS............................................................................................................................. 35

Chapter 3: Results.............................................................................................................. 36
  The Predictive Power of Stress on Adolescent Alcohol Consumption..................... 36
  Differences in Motivations for Drinking during Adolescence................................... 36
  Differences in Current Alcohol Consumption......................................................... 41
Differences in Alcohol Consumption during Adolescence……………………………………..42

Chapter 4: Discussion……………………………………………………………………………42

Limitations…………………………………………………………………………………………..48

Implications of the Results……………………………………………………………………...51

References…………………………………………………………………………………………54

Appendix A: Letter from the Institutional Review Board………………………………………67

Appendix B: Sample Questionnaire…………………………………………………………….68

Curriculum Vita……………………………………………………………………………………78
LIST OF TABLES

Table 1: Outliers Removed from Retrospective Scales..................................................31
Table 2: Outliers Removed from Current Scales.............................................................31
Table 3: Means and Standard Deviations for MDMQ-R Scores (Community Type)..........38
Table 4. Means and Standard Deviations for MDMQ-R Scores (Sexual Orientation).........40
ABSTRACT

Considerable research has demonstrated that adolescents, as a whole, are experimenting with alcohol at alarming rates (Biddle, Bank, & Marlin, 1980; Donath, et al., 2011; King, Chassin, & Molina, 2009). However, research is very mixed on findings identifying which groups of adolescents tend to be most at risk for using alcohol, as well as the reasons these groups identify for such experimentation (Carlo, Crockett, Wilkinson, & Beal, 2011; Coomber, Toumbourou, Miller, Staiger, Hemphill, & Catalano, 2011). The current study examined participants from various community types and sexual orientations, in a retrospective manner. Participants (ages 18 and over) answered questions on a survey designed by the researcher (adapted from the AUDIT-C, the MDMQ-R, and the PSS) regarding past and present alcohol use. Findings from the survey were analyzed to determine which group is most likely to use alcohol during adolescence, motivations for alcohol use, and which group is most likely to currently use alcohol. Although stress does not appear to predict alcohol consumption during adolescence, significant findings were observed regarding the groups most likely to consume alcohol and the reasons these participants gave for engaging in this behavior, both currently and during adolescence. Sexual orientation was a significant factor for understanding motivations for drinking alcohol, as well as the amount of alcohol consumed, during adolescence and presently. Community type was only significant when considering the amount of alcohol consumed during adulthood, with rural participants reporting more alcohol consumed than their urban counterparts. The current study was performed to further our understanding of alcohol use in adolescence and possibly give aim for intervention strategies which could potentially target adolescents who identify with groups who are found to be most “at-risk.”
CHAPTER 1: INTRODUCTION AND REVIEW OF THE LITERATURE

According to the National Institute on Alcohol Abuse and Alcoholism (NIAAA, 2013), every year 5,000 people under age 21 in the United States die from alcohol-related car crashes, homicides, suicides, alcohol poisoning, and other injuries such as falls, burns, and drowning. Additionally, more than 190,000 people from this population visit the emergency room annually for serious alcohol-related injuries (NIAAA, 2013). Approximately 40 percent of people with an alcohol use disorder developed their first symptoms between the ages of 15 and 19 (Martin & Winters, 1998; Al-ghzawi, Al-Bashtawy, Azzeghaiby, & Alzoghaibi, 2014). These numbers are a huge cause for concern, not only from a parental or familial perspective, but also from educational, community, governmental, medical, and psychological perspectives. In order to better intervene with this population, it would be beneficial to understand what motivates these adolescents to consume alcohol and which factors impact alcohol consumption most heavily throughout a lifetime.

Research to date has clearly defined risk factors for adolescent drinking (i.e., having peers or family members who drink, being exposed through popular media, attempting to “escape” and self-medicate, boredom, rebellion, instant gratification, lack of confidence, and misinformation) (Biddle et al., 1980; Chilenski & Greenberg, 2009; De Haan & Bolijevac, 2009; Griffin, Epstein, Botvin, & Spoth, 2000; Tobler, Komro, & Maldonade-Molina, 2009). However, the research is very mixed on findings identifying which adolescents tend to be most at risk for engaging in drinking behaviors, as well as the reasons these youth identify for using alcohol (Carlo, et al., 2011; Coomber, et al., 2011; McKirnan & Peterson 1988).

Some research suggests that being from a rural area is a protective factor when it comes to substance use (Edwards, 1994; Gibbons, et al., 2007), while other research claims that rural
adolescents are more likely than their urban counterparts to use alcohol (Maxwell, Tackett-Gibson, & Dyer, 2006). Research has demonstrated that urban adolescents who engage in the underage consumption of alcohol may do so because they are better able to access alcohol and these adolescents are more likely to engage in other high-risk activities like smoking marijuana and violent or delinquent behaviors (Komro, Tobler, Maldonado-Molina, & Perry, 2010). Rural adolescents may engage in the underage consumption of alcohol because of familial or community aspects, as well as a learning history involving a long-standing pattern of alcohol consumption passed from generation to generation (Chilenski & Greenberg, 2009). Most research in the area agrees that people (regardless of age) who identify as being a part of a sexual minority group report higher levels of alcohol and other substance use (Marshal, Friedman, Stall, & Thompson, 2009) than heterosexual adolescents; however, the motivations for this alcohol consumption are unknown. There is a gap in our understanding when it comes to the interactions between various clusters to see which group of adolescents is at the biggest risk for alcohol use (Carlo, et al., 2011; Coomber, et al., 2011; McKirnan & Peterson 1988). That is, although there is some agreement as to which adolescents may be most at risk for excessive alcohol consumption, there is little understanding with regards to the motivation for early experimentation with alcohol.

Internal and external reasoning are two opposing ways of explaining what motivates one’s actions. Internal reasons are typically those which point to attributes which are internal to the subject as a cause of a behavior (for example, stress or sadness could be considered internal reasons for drinking alcohol) (Finlay & Schroeder, 2012). External reasons are those which point to things outside the subject as the cause for a behavior (for example, having nothing to do in the community could be considered to be an external reason for drinking alcohol) (Finlay &
Schroeder, 2012). These internal and external motives for behaviors such as alcohol consumption in adolescence can be broken down in a number of different ways and into many different categories. For the purpose of this study, a preexisting model will be used to break down motivations into the following categories: social, coping with negative affect such as anxiety or depression, enhancement, and conformity.

Social motivations are those which result from sociocultural influence to initiate a specific behavior (Mosby, 2013). When considering alcohol consumption, these motivations may include: drinking as a way to celebrate, because friends were drinking at a get-together, drinking to be sociable, because drinking was customary on a special occasion, or because drinking made social gatherings more enjoyable.

Reasons for behavior related to coping are those that help a person deal with a negative emotional state (Kuntsche, Knibbe, Gmel, & Engels, 2006). Chalder, Elgar, and Benett (2006) reported that adolescents with parents suffering from alcoholism were more likely to drink to cope with negative affect. Additionally, Cooper, Russell, Skinner, and Windle (1992) found that coping motives predict the greatest level of alcohol abuse symptoms. Coping motives have been further broken down to coping with depression and coping with anxiety as the more generic term “coping” does not fully encompass what an individual is experiencing (Grant, Stewart, O’Connor, Blackwell, & Conrod, 2007). Motivations for alcohol consumption related to coping with anxiety may include: drinking to relax, drinking to feel more self-confident or sure of oneself in an ambiguous situation, drinking to lessen feelings of nervousness, or simply to reduce anxiety. Motivations for drinking which are related to coping with depression are very extensive and include: drinking to forget worries, to cheer up when in a bad or low mood, to numb a sense of pain, to help when feeling sad or depressed, to stop dwelling on things, drinking to turn off
negative self-talk or thoughts, to help feel more positive about things in life, to stop feeling hopeless about the future, and to forget painful memories. In a discussion of the Drinking Motives Questionnaire, Anestis (2009) reported results from a study where individuals who drank to cope with any type of negative affect, whether this be depression, anxiety, or another negative mood, experienced an increased belief that alcohol is capable of performing this function when they took part in a negative mood induction.

Enhancement relates to the motivation to maintain or elevate positive aspects of one’s self-concept (Sedikides, Skowronski, & Gaertner, 2004) or to enhance positive emotional states (Kuntsche, et al., 2006). Motivations for drinking related to enhancement include: drinking because of an enjoyment of the feeling, drinking because it is exciting, drinking to get a high, drinking because it is fun, and drinking because of the good feelings consumption brings. Anestis (2009) reported that similar to the individuals who drank to cope with negative affect, individuals who drank to enhance positive affect experienced an increase in their belief that alcohol consumption could increase a positive mood when they took part in a positive mood induction.

Motivations related to conformity stem from the need to identify with others in similar situations or states (Labrecque, Krishen, & Grzeskowiak, 2011). These motivations include: drinking to be liked, drinking so as not to be picked on by others about not using, drinking because of peer pressure, or drinking so as not to feel left out. A relatively new conformity-related construct “Fear of Missing Out” (i.e., FoMO) has been shown to be positively correlated with negative physical and mental health outcomes (Baker, Krieger, & LeRoy, 2016). In other words, when individuals experience a higher level of FoMO (described as a need to conform so
as to not experience negative affect after missing out) their engagement in negative health related outcomes is higher (Baker, Krieger, & LeRoy, 2016).

The current study is interested in looking at levels of alcohol consumption in adolescents from various backgrounds (rural, urban, heterosexual, or sexual minority) to determine where (geographically) alcohol use is most problematic, as well as to determine whether drinking behaviors differ with regards to identification with a certain sexual orientation. Not only is there an aim to determine the adolescents who are most at risk for underage drinking, but there is also a goal to better understand why these adolescents use alcohol. Understanding individual and group differences in the use of alcohol will be beneficial for future programs and directives aimed to help school-aged children, adolescents, and young adults make decisions about drinking, with hopes that these initiatives help set the stage for life-long engagement in healthy habits.

**Key Terms**

Because of the nature of the current study, and due to the ambiguity of some of the factors that are being explored, specific, operational definitions of the key terms must be provided. “Rural” is defined by the Merriam-Webster online dictionary as, “Of or relating to the country and the people who live there instead of the city” (Merriam-Webster Incorporated, 2013a). Urban” is defined as “of or relating to cities and the people who live in them” (Merriam-Webster Incorporated, 2013b). However, for the purposes of this study, rural counties are described as “non-metro” and are made up of some combination of open countryside, rural towns with populations of fewer than 2,500 people, and urban areas with populations ranging from 2,500 to 49,999 people (United States Department of Agriculture Economic Research Service [USDA-ERS], 2015). “Non-metro” counties rank 6-9 on the Beale Rural-Urban Continuum
Codes. Urban counties are those which rank 1-5 on the Beale Rural-Urban Continuum Codes, have populations of 50,000 or more people, and are located in areas described as “metro.” The Beale Rural-Urban Continuum Codes are rankings of each county in the United States based on population, population dispersal across land, and the population’s access to resources (United States Department of Agriculture Economic Research Service [USDA-ERS], 2015).

Pertaining to sexual orientation, actual sexual intercourse and behaviors were not taken into account when developing operational definitions for terms such as heterosexual, sexual minority, gay, lesbian, bisexual, and transgender. Throughout the remainder of this text, the terms sexual orientation and sexual preference will be used interchangeably, in accordance with APA standards for avoiding heterosexual bias in language. Although the Merriam-Webster online dictionary defines the term “heterosexual” as “of, relating to, or characterized by a tendency to direct sexual desire toward the opposite sex,” for the purposes of this study, the term “heterosexual” pertains to any person who identifies as being attracted to the opposite sex (Merriam Webster Incorporated, 2013c). Additionally, sexual minorities include those who identify as “gay,” “lesbian,” bisexual,” “transgender,” or “other.” Gay individuals are defined in this study as biological or trans-identifying men who identify as men who are attracted to, or prefer, other men. Lesbian participants are those biological or trans-identifying women who identify as being attracted to other women. Bisexual individuals are those individuals (men or women) who identify as being attracted to members of both sexes. Transgender participants are those whose gender identity or expression differs from that associated with the sex they were assigned at birth (American Psychological Association [APA], 2013). “Other” identifying participants are those who do not identify with any of the above descriptions, but also do not consider themselves to be heterosexual (including individuals who identify as queer, questioning,
intersex, asexual, non-binary, pansexual, etc.). Throughout this paper, the terms “sexual minority,” “Gay, Lesbian, Bisexual, Transgender (GLBT),” “Gay, Lesbian, Bisexual, Transgender, Other (GLBTO)” will be used interchangeably.

**Adolescent Alcohol Use**

There are many determinants for adolescent alcohol use. Influential, early research on the topic by Biddle, et al. (1980) points to parental norms, parental behavior, peer behavior, adolescents’ own norms, and adolescents’ own preferences as five determinants that work together to predict adolescent alcohol use. Although these determinants have been highly cited by many researchers, more recent data does not agree that these five factors give a reliable prediction of adolescent alcohol use. For example, Biddle, et al. (1980) did not take stress levels (whether it be work, school, or otherwise related) or other negative affect experienced by adolescents into account when discussing predictors of alcohol consumption; however, currently, research supports the notion that there is increased belief that alcohol is capable of reducing negative affect (Anestis, 2009). Therefore, it is important to consider theories related to the reduction of negative affect when considering predictors of alcohol consumption patterns in adolescents.

The tension-reduction theory of alcohol is a widely accepted theory which asserts that people drink alcohol in order to decrease the amount of stress they perceive they are under (Greely & Oei, 1999). In other words, people are motivated to drink when they experience stressors and these stressors are still widely undefined (e.g., stressors may be work related, familial, social, intrinsic, financial, or other). From a tension or stress-reduction perspective, Butler, Dodge, and Faurote (2010) found that the greater number of hours worked daily during adolescence and early adulthood was positively correlated with the amount of alcohol consumed.
High levels of perceived stress from work or in general are correlated with higher levels of alcohol use. These results give evidence to the idea that adolescents may use alcohol as a means of stress and tension reduction. However, we do not know what groups of adolescents see alcohol consumption in this manner or if tension-reduction is the most endorsed motivation for drinking during adolescence. That is, do certain groups of adolescents tend to use alcohol to reduce stress more often than other groups of adolescents and if so, is this related to the amount and type of stress the adolescent is experiencing? Additionally, despite this correlational data, researchers did not ask participants to identify whether stress was a motivator for drinking.

Findings from research conducted by King, Molina, and Chassin (2009) also show the importance of stress when trying to predict adolescent alcohol use. This research focused on familial stressors. They found that familial stressors affect adolescent alcohol use, predominantly by producing time-specific boosts (e.g., when the adolescent experiences upset or negative feelings regarding their familial situation) in drinking and they found support that some shared risk factors (e.g., parental alcoholism, male gender, and poor parental support) seem to act as influences that launch adolescents into increasing trajectories of alcohol use.

It seems plausible that the more stress an adolescent experiences, whether it be familial, work-related, school-related, or other, alcohol use as a stress reduction technique is more likely to be utilized. Unfortunately, most of the literature reviewed by King, Molina, and Chassin (2009) and Butler, et al. (2010) only consider stress or tension reduction as a motivation for drinking. Although this may be a significant factor in adolescent decision making when it comes to drinking alcohol, other motivations must be taken into consideration to determine best possible practices for working with this specialized population.
According to the literature reviewed, not only do adolescents tend to have preconceived ideas about the tension reduction powers of alcohol, they also have enhanced beliefs of mood changes in general following alcohol consumption. In fact, the anticipation of positive outcomes from drinking is associated with increased adolescent as well as college alcohol use (Merrill, Wardell, & Read, 2009). Not surprisingly, these researchers found that heavier drinkers and those with more positive expectations for alcohol’s effects generally interpreted drinking occasions more positively. For example, those teens who were experiencing negative mood symptoms and expected alcohol consumption to raise their moods interpreted instances of drinking more positively than teens who did not expect alcohol to have a positive impact on their mood. However, they also found discrepant results regarding some drinkers’ actual drinking outcomes to expectancies. More recently, Miranda, Monti, Ray, Treloar, and Reynolds (2014) found that not only do expectations about the mood enhancing properties of alcohol predict higher rates of alcohol consumption, but further explored subjective responses to incidents of heavy drinking in real time. Measurable changes in affect due to alcohol consumption were observed in adolescent “problem” drinkers that were not observed in adult “problem” drinkers (Miranda et al., 2014). Specifically, because adolescents experienced decreased stimulation and increased sedation and “high,” they rated incidents of drinking more positively than their adult counterparts. Positive associations with alcohol were described by adolescent participants which were not observed in adults.

Although Biddle, et al. (1980) did not specifically look into tension reduction or mood enhancement motives for adolescent alcohol consumption, they did point to another commonly cited motivation, peer behavior and the interpretation of such by adolescent drinkers. Social networking sites add another layer to traditional “peer pressure.” In their study, Litt and Stock
(2011) sought to better understand the impact of Facebook on social norms related to alcohol consumption. According to Blease (2015), there are currently more than 1.23 billion active Facebook accounts. Unfortunately, it is unknown how many of these accounts belong to adolescents; however, it was estimated in 2015 that more than 30% of Facebook members were ages 12-17 (Blease, 2015). According to Litt and Stock (2011), social norms for alcohol use, as portrayed by Facebook peer profiles, significantly impact the behavior and attitude patterns of adolescents. That is, adolescents who were exposed to normative alcohol use via Facebook exploration were at a higher risk for alcohol use and positive cognitions regarding such experimentation than those peers who were not active Facebook users. Baker, Krieger, and LeRoy (2016) studied the relationship between social media and FoMO and indicated positive correlation between time spent on social media and experience of FoMO. As stated previously, this research also modeled the positive correlation between FoMO and negative health and mental health outcomes (Baker, Krieger, & LeRoy, 2016).

Unfortunately, predictors of alcohol use are not universal. That is, what predicts continued alcohol use for some adolescents does not predict this behavior in all adolescents (Griffin et al., 2000; Hughes & Eliason, 2002; Merrill et al., 2009). Individual differences, as well as group inclusion, must be taken into consideration when observing adolescent alcohol consumption (Komro, et al., 2010; Martin & Winters, 1998). In the current research, individual differences and group inclusion will be addressed more fully.

**Rural vs. Urban Alcohol Use**

Urie Bronfenbrenner’s bioecological model of human development paved the way for our understanding that where an individual lives and the influence of various systems within their “community” are crucial to understanding that individual’s developmental trajectory
Bronfenbrenner’s original model (Bronfenbrenner, 1994) described four systems which influence the development of all individuals. The microsystem includes the individual’s interpersonal relationships and direct interactions with his immediate surroundings. Family members, close friends, and the individual’s school are integral parts of the microsystem. The mesosystem is made up of the interactions between aspects of the microsystem and may include parent-teacher relationships. The exosystem includes aspects of life in which the individual does not play a direct role. These may include parental employment and familial school achievement. Finally, the macrosystem is made up of social and cultural ideologies and beliefs and may include political or religious norms in the individual’s culture. It is easy to see how these various systems differ between communities described as either rural or urban and how these systems may differ with regards to resource availability or access, poverty, school environment, family patterns, employment rates, geographical location, and transgenerational belief patterns. We must consider how these systems impact the decisions of adolescents to use alcohol or not. The importance of community context with regards to adolescent alcohol use cannot be overlooked.

When considering the microsystem, Bronfenbrenner (1994) asserted that possibly the most important relationship in a young person’s life is that with his or her parents. Adolescents who are raised by single parents or by people who are not family may experience low levels of supervision which is related to higher levels of alcohol consumption. These parents or guardians have significantly less influence over their children and often have “indifferent” opinions of their children’s alcohol use. Parents who do not talk to their children about alcohol consumption or make their opinions of disapproval known to their children tend to experience more problems related to their children engaging in alcohol use (Scheer, Borden, & Donnermeyer, 2000).
children enjoy drinking, are not informed on the negative impacts of alcohol, and do not experience resistance or confrontation from their parents about alcohol, how can we expect them to make the mature decision not to drink? Adolescent substance use (for rural and urban adolescents) is lowest when adolescents perceive that their families will stop them or care that they “got drunk” (Scheer, et al., 2000). These findings continue to be corroborated by research in the area. In 2013, Sylvie and McCay found that parental disapproval related to lower levels of alcohol consumption; however, this was more evident in “young” adolescents (age 11-14) than in older adolescents (14-19). So, although modern research continues to support the positive correlation between lower parental approval of alcohol consumption and adolescent alcohol consumption rates, there may be more influential predictors, especially during “late” adolescence (Sylvie & McCay, 2013).

While adolescents from all types of communities are known to experiment with substances, recent research suggests that young adults from rural areas may be more at risk than their urban counterparts for substance use. In fact, lifetime prevalence rates for alcohol consumption have been found to be significantly higher in rural areas than in urban areas (Donath et al., 2011). That is, not only are rural adolescents shown in this research to drink more heavily than urban counterparts, but they are also more likely to continue drinking as adults and in geriatric years. Chilenski and Greenberg (2009) worked to develop a tool aimed to assess five risk factor and four protective factor domains which relate community structure to rates of adolescent substance use. Domains that may increase the likelihood for rural adolescents to use alcohol include economic risk, residential instability, crime, the substance-use environment, and school district risk. Each of these factors can increase the amount of negative affect (anxiety or depression) that adolescents experience. Additionally, these community risk factors were found
to occur together; however, not all of these were found to be significantly correlated with adolescent alcohol use.

The quality of school district was one mesosystem factor most significantly positively correlated with rates of adolescent alcohol use (Chilenski & Greenberg, 2009). In other words, school districts of lower qualities tended to have more adolescent drinkers. Related to the importance of quality of school environment, in their research, The Gay, Lesbian, and Straight Education Network (GLSEN, 2016) found that schools without GLBT or Gay-Straight Alliance groups reported a lower level of comfort at school for GLBT students, as well as lower levels of participation in extracurricular activities (Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2013). Generally, rural schools have fewer opportunities for specialized clubs and curricular or extracurricular activities (Chilenski & Greenberg, 2009). Comfort at school, as well as participation in extracurricular activities are often thought to be protective factors for students in rural or urban school systems.

If rural schools do, indeed, have fewer opportunities to join, participate, or lead specialized clubs or activities, this would give evidence to the findings that these adolescents drink more often and more heavily. However, extensive research continues to show a connection in sports participation and increased underage alcohol consumption (Mays, Depadilla, Thompson, Kushner, & Windle, 2010; Lorente, Souville, Griffet, & Grelot, 2004). Could this connection between extra-curricular or sports participation be related to enhancement or social motivations for drinking? Or, could students who engage in sports experience increased stress compared to other peers? Until now, these motivations have not been explored together in research.
On the other hand, comfort at school and the availability of clubs or activities may only tell part of the story when it comes to the relationship between school quality and level of alcohol consumption. Another factor which should be considered relates to the social competence of the adolescents produced by low quality school districts (Griffin et al., 2000). Poorly competent youth may perceive and expect more positive benefits from drinking and engaging in other substance use than do their more highly competent counterparts; however, poorly competent youth are found across the spectrum of low quality school districts in both rural and urban communities (Griffin et al., 2000). Social competence, in particular, was found by this research to be a protective factor with regards to drinking and other risky behaviors. These findings may be because more socially competent teens endorse more identity confidence and are less likely to expect unlikely benefits from engaging in alcohol use (Chilenski & Greenberg, 2009; Griffin et al., 2000).

Research by De Haan and Bolijevac (2009) added to our understanding of the risk factors that are significantly experienced by teens from rural communities. They found that young drinkers differed from nondrinkers by the following factors, “higher perceptions of peer, parental, and overall community drinking, as well as lower levels of parental closeness and religiosity” and factors that distinguished adolescents who endorsed binge drinking versus those who did not included, “increased drinking to reduce stress, drinking to fit in, perceptions of peer drinking, and perceived lack of alternatives to drinking” (De Haan & Bolijevac, 2009, p. 81). Rural students have fewer choices for curricular and extracurricular learning, fewer opportunities to achieve employment, as well as geographic isolation. Students who engaged in drinking behaviors were more likely to assess positive or indifferent reactions to their drinking from their parents, peers, and community members. These individuals in particular may be influenced by
community programs aimed at education and challenging the “positive” or “indifferent” perception of alcohol use by teenagers to one which understands the negative outcomes associated with such behavior.

Coomber et al., (2011), suggest that not only do rural teens tend to use various substances more often and to more extreme levels, but they also begin experimentation at younger ages and report higher rates of lifetime use than urban counterparts. Although these researchers were interested in various substances (including alcohol, tobacco, cannabis, etc.), the only substance that rural adolescents were found to use significantly more often and to greater degrees was alcohol.

Rural adolescents have also been found to participate in risky behaviors such as driving a vehicle under the influence of alcohol and frequent binge drinking more often than their urban counterparts (Lambert, Gale, & Hartley, 2008; Maxwell, et al., 2006). Speculation about this finding produces the thought that adolescents in rural communities may perceive driving under the influence of alcohol as “okay” because the “backroads” in rural counties tend to be less crowded. Therefore, the idea that someone else could be hurt by the decision to drive under the influence is somewhat lessened (Lambert, et al., 2008). Even more likely is that rural adolescents feel less likely to be caught driving under the influence as police and other regulatory authority figures are fewer than in urban areas (Scheer et al., 2000). If an adolescent does not feel the threat of “getting caught” and therefore having consequences, he or she will be more likely to engage in “risky” behaviors (Lambert, et al., 2008; Scheer et al., 2000).

Rural adolescents are not the only ones who experience the risk factors discussed above for alcohol consumption. Urban areas with low socioeconomic status (SES), higher rates of violence, and poorer school districts also report increased adolescent alcohol use. Gibbons et al.,
(2007) demonstrated through their research that African Americans adolescents, in particular, were more likely to use alcohol, if they lived in urban areas versus rural communities. They reported that availability of substances seemed to also be a risk factor that this population was particularly impacted by, stating that, “it would appear that living in more urban environments resulted in adolescents growing up a little faster,” (Gibbons et al., 2007, p. 26). Not surprisingly, this research also found that experiencing stress (racial discrimination in this case) early in life predicted substance use 5 years later, indicating that adolescents (rural or urban) who experience stress during their formative years will be more likely to engage in substance use (Gibbons et al., 2007). So, not only were these urban adolescents forced to “grow up” and “make adult decisions” at a younger age than their rural counterparts, but they were also experiencing higher levels of external and internal stressors which are often correlated with higher substance use and abuse.

Additionally, urban adolescents were found in one study to drink more often than their rural counterparts; however, they drank a lesser amount on an average drinking occasion (Maxwell, et al., 2006). These adolescents were also more likely to smoke marijuana, which was, interestingly, reported to be easier to access for these adolescents than alcohol (Maxwell, et al., 2006). Shih, Mullins, Ewing, Miyashiro, and Tucker (2015) found that youth who were exposed to higher densities of on premise alcohol outlets (bars, clubs, etc.) are at risk for more alcohol use during adolescence and throughout their lifetime. Urban communities tended to have higher densities in this study (Shih, et al., 2015). Therefore, access to a substance plays a major role in adolescent experimentation.

Homelessness during any stage in life, but especially during adolescence, is also found to be a factor associated with substance use and abuse (NAEH, 2014). Anxiety, depression, and
serious mental illness run rampant in the homeless population and, coupled with alcohol consumption, makes it difficult for these individuals to function optimally day to day. Although being without a home is a problem faced by people from all community types, homelessness is especially pervasive in urban communities and may, therefore, put urban adolescents at an increased risk for alcohol consumption. According to the National Alliance to End Homelessness (NAEH), there are approximately 14 homeless people for every 10,000 people in rural areas, compared with 29 homeless people out of every 10,000 in urban areas (NAEH, 2014). Additionally, in their 2013 report, the National Conference of State Legislatures (NCSL) reported that youth age 12 to 17 are more at risk of homelessness than adults and between 20 to 40 percent of homeless individuals identify as GLBT.

One factor which was not predominately expressed by other researchers was exposure to alcohol advertisements. In their 2009 study of 5,655 urban youth, Tobler, et al. found that neighborhood context (as it relates to alcohol outlet density, commercial alcohol accessibility, alcohol advertisement exposure, and perceived neighborhood strength) was positively associated with alcohol use behaviors. Specifically (and unsurprisingly), positive correlations were observed between increased exposure to alcohol advertisements and alcohol drinking behaviors in urban regions. Urban adolescents are thought to have more exposure to alcohol advertisements than rural adolescents because they are likely to be exposed to a greater variety of types of advertisements (e.g., television commercials, billboards, bus and bench advertisements, magazine stands, etc.). Adolescents have been found to be vulnerable to other types of advertisements, including those for substances such as nicotine and energy drinks.

In terms of protective factors as they relate to adolescent alcohol use patterns, Carlo et al. (2011) found that rural adolescents who frequently engage in prosocial behaviors, such as
sharing, comforting, volunteering, and donating resources are significantly less likely than adolescents who do not engage in these behaviors to use substances. In order for these prosocial behaviors to be beneficial, however, opportunities for such must be available to adolescents and participation must be encouraged by families, as well as the community. More often than not, this is not the case. In fact, Carlo et al. (2011) called for more action and initiative to bring additional opportunities to rural communities.

Engagement in prosocial behaviors is not the only protective factor when it comes to alcohol use by teenagers. Being raised by parents or other family members, spending afternoons after school with parents, having parents who talk to youth about dangers of drug and alcohol use, having parents who disapprove of their child using drugs or alcohol, being involved in extra-curricular, church-related activities, and having plans to work or attend college or technical school after high school are all factors that have been identified as associated with less alcohol and illegal drug use for all adolescents, no matter community type (Myers, 2013). Positive parental influence and time spent with parental figures are factors most closely related to less alcohol consumption (Myers, 2013).

A final protective factor is being female. Research continues to show that females (no matter the age) tend to drink and use other substances less often and less severely. Based on research by Shannon, Havens, Oser, Crosby, and Leukefeld (2011), men report past, as well as current and lifetime, alcohol use significantly more often and at significantly younger ages than women. This finding is interesting considering women are considered to report higher levels of stress and other negative affect. Could this point to a gender difference in the perception of the tension-reduction expectations on alcohol? Cooper, Russell, Skinner, Frone, and Mudar (1992) think so. In their study, they found that men were more likely to endorse the tension-reduction
properties of alcohol and were also more likely to engage in other more “avoidant” means of reducing or dealing with negative affect (Cooper, et al., 1992). Women tend to endorse the stress-reduction properties of alcohol at lesser rates to their male counterparts. Furthermore, “The 2008 NSDUH suggests 58% of males aged 12 or older were current drinkers compared with only 46% of females” (Shannon et al., 2011, p.98).

Although there is substantial research that has found rural adolescents to be more likely to engage in alcohol use, there is just as much literature condemning urban adolescents as those who drink more often (Edwards, 1994; Gibbons et al., 2007; Griffin et al., 2000). Notably, the risk factors listed for rural adolescents are also prevalent in urban communities. Financial hardship and low quality schools exist in every type of community, not just rural, and are associated with just as high levels of alcohol use. Alcohol use by any adolescent is significantly related to comorbid substance use as well as longitudinal trajectories of continued consumption and use (Komro, et al., 2010).

No matter the community type, adolescent alcohol use is a problem that needs to be addressed in proactive ways. Tobler, et al. (2009) suggest that efforts should be made to minimize risk factors for alcohol use and maximize protective factors. Specifically, they suggest that communities should work harder and more cohesively to reduce adolescent access and exposure to alcohol. Parental and community involvement is of the utmost importance when talking about behavior modification. Just as Gibbons et al., (2007) reported, children who experience stress early in life are more likely to use alcohol and other substances later on. Being able to tailor programs and preventative measures to the needs of the group of adolescents one is working with would be beneficial. Knowing the specific needs of each group is important for making this tailoring possible (Tobler et al., 2009). Therefore, adolescents need to be broken
into smaller groups than what community type allows for, especially since the biggest risk factors are prevalent in both rural and urban communities. The current research attempts to do this by dividing the groups further and looking at the impacts of various stressors on these adolescents’ decisions to use alcohol or not.

**Sexual Minority Group Alcohol Use**

McKirnan and Peterson (1988) were some of the first researchers to test the theory that stress induces substance abuse among individuals made vulnerable by specific attitudes and expectancies. In their research, they found that gay men engage in stress-related substance use which was related to the amount of negative attitudes and expectancies experienced based on cultural views of homosexuality. During this time, being gay often resulted in outwardly negative responses from friends, family, and strangers, as well as physical or emotional abuse or violence. The findings from McKirnan and Peterson’s (1988) study are integral to our understanding of the use of alcohol to cope with negative affect (intrinsic motivation for drinking) and negative evaluations from others (extrinsic motivation). However, this research (like most research on alcohol use) relies on adult participation in research. We do not know whether or not adolescents who identify as GLBT engage in stress-related alcohol consumption in correlation to the amount of negative attitudes they experience. We do, however, know that these adolescents continue to experience significant negative attitudes and cultural views of homosexuality at home, at school, and in the community (GLSEN, 2016; Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998).

Through a school-based survey of 1,032 students in Massachusetts (10% GLBT), Almeida, Johnson, Corliss, Molnar, and Azrael (2009) found that GLBT youth score significantly higher on scales measuring depressive symptomatology, suicidal ideation, and self-
harm. Additionally, through mediational analyses, this research pointed to higher levels of perceived discrimination against GLBT students to account for elevated depressive symptomatology. Perception of discrimination is very likely to contribute to emotional distress among GLBT adolescents, but how do these students cope with this elevated distress? Are these heightened levels of depressive symptomatology motivating factors for the observed levels of alcohol consumption in this population?

GLSEN was developed in 1990 to ensure the safety of all students in school. By conducting original research, providing developmentally appropriate resources, partnering with decision makers and dozens of national education organizations, and empowering students to affect change, GLSEN “works to ensure that LGBT students are able to learn and grow in school environment free from bullying and harassment” (GLSEN, 2016).

According to the 2013 National School Climate Survey, conducted by GLSEN, only half of GLBT students in the United States attend a school that had a Gay-Straight Alliance (GSA) or similar student club that addressed LGBT issues in education (p. 56). GSAs help provide students who identify as part of a sexual minority group with a safe place within the school environment to report or express their concerns about harassment. Of those schools that do have a GSA or similar student club, over two-thirds of GLBT students attended club meetings. One concerning aspect of GSAs is the tendency for schools to require parental permission to participate in clubs. If GLBT students have not come “out” to their parents, they will likely not request permission and, therefore, cannot participate or benefit from GSA groups.

GLSEN (2013) reports eight out of ten GLBT students across the country are harassed at school based on sexual orientation. GLSEN completed extensive research with regards to school climate across the United States. Because of its Appalachian/rural roots, Kentucky’s school
climate is described below. Additionally, New York is considered to be one of the most urban states in the United States, so information from the New York school climate report is also presented for comparison. Interestingly, as described below, neither Kentucky nor New York presented with safety in regards to their school climate for GLBT students.

The GLSEN 2013 National School Climate Survey demonstrates that Kentucky schools were not safe for most GLBT secondary school students (GLSEN, 2013). Most GLBT students in Kentucky did not have access to Gay-Straight Alliances, or other school resources, and were not protected by comprehensive anti-bullying/harassment school policies. Fewer students reported hearing racist remarks at school (69%) than homophobic remarks (91%), sexist remarks (95%), or negative remarks about gender expression (88%). Approximately eight in ten GLBT students in Kentucky experienced verbal harassment at school based on sexual orientation and six in ten based on the way they expressed their gender. This harassment does not just occur from peer to peer; 34% of students surveyed reported hearing staff make homophobic remarks. Unfortunately, 54% of students who experienced harassment at school (either by another student or a staff member) never reported the incident to school officials and 59% never spoke of the harassment to their families. Many of these numbers have actually raised in severity since 2013.

Findings from the 2013 National School Climate Survey demonstrate that New York schools were also not safe for most GLBT secondary school students (GLSEN, 2013). Nine out of ten students surveyed heard homophobic remarks (e.g., “fag” or “dyke”) regularly at school. Fewer students in New York (23%) than in Kentucky (34%) heard staff use biased or homophobic language at school. Approximately two in ten GLBT students in New York were physically harassed (e.g., pushed or shoved) at school based on the way they expressed their gender and about one in ten was physically assaulted (e.g., punched, kicked or injured with a
weapon) based on their sexual orientation. Comparatively, in Kentucky, nearly five in ten GLBT students were physically harassed at school (e.g., pushed or shoved) based on their sexual orientation and two in ten were physically assaulted (e.g., punched, kicked or injured with a weapon) based on the way they expressed their gender. The extensive levels of stress and negativity experienced by these individuals may be directly related to the amount of alcohol they consume and may point to an explanation of motivations for engaging in drinking behaviors.

Although substance use has reportedly declined for sexual minority groups (as a whole) during the past two decades, this trend has not been observed for sexual minority youth and adolescents (Hughes & Eliason, 2002). Syndemic theory predicts that stressors for the GLBT communities may begin early in life, the first time an individual deviates from cultural (heterosexual) norms, and these deviations are punished by teasing, bullying, and victimization or other negative evaluations or behaviors from others (Garofalo, et al., 1998; GLSEN, 2016). The minority stress theory suggests that differences in substance use and abuse between heterosexual and GLBT youth exist because of experiences with discrimination, victimization, and oppression that are prevalent in a pervasively gay culture (Marshal, et al., 2009). Just as African American adolescents were reported by Gibbons, et al. (2007) to be more likely to use alcohol if they experienced racial discrimination, gay, bisexual, and other adolescents confronting issues of sexual orientation have been identified to face stress such as emotional isolation, social rejection, and lowered self-esteem, which has been found to be related to increased alcohol use (Garofalo, et al., 1998), depressive symptomology, and self-harm behaviors (Almeida, et al., 2009). Interestingly, although levels of alcohol consumption by GLBT individuals have decreased in recent years, depressive symptoms and suicidality, which were reported as more prevalent in GLBT populations than in heterosexual populations, persist.
over time and do not seem to decrease as these adolescents transition into adulthood (Garofalo, et al., 1998; Marshal, et al., 2013). In fact, GLBT youth are more likely than heterosexual counterparts to engage in suicidal risk behaviors, as well as multiple substance use and sexual risk behaviors. Additionally, several studies have reported that drinking rates in sexual minority individuals decline less dramatically with age than do rates in heterosexual individuals (Hughes & Eliason, 2002).

Alcohol use may be related to high-risk sexual behavior in any population; however, this correlation has been most specifically studied in the population of gay men (or men who have sex with men) because of the correlation between unprotected sex between males and HIV risk (Vanable, et al., 2004). Although there is not a simple causal impact of alcohol on risky sexual behaviors, it has been consistently found that alcohol consumption prior to sexual intercourse is strongly related to unsafe sex for encounters involving non-primary sexual partners (Vanable et al., 2004). Among adolescents, who are notorious for engaging in risky behavior regardless of the population they report identification with, this finding is especially significant (Lambert et al., 2008).

As previously reported, research consistently indicates that males (regardless of age) are more likely to use alcohol than females (Shannon, et al., 2011; Cooper, et al., 1992). In their 2006 study, Ziyadeh, et al., examined survey data from 9,731 early and middle adolescent girls and boys. Interestingly, lesbian and bisexual adolescent females were found to report alcohol use at much higher rates than gay and bisexual adolescent males (Ziyadeh et al., 2006). Adolescent girls who identify as lesbian or bisexual may tend to experience more discrimination and victimization than gay or bisexual boys, or that they deal with discrimination by using alcohol
more often. These avoidant behaviors may be the coping mechanism of choice for these individuals.

Several “modern” sociocultural factors have been identified as being more specific predictors of alcohol consumption within the GLBT population including affiliation with gay culture and HIV status (Green & Feinstein, 2012). This research points to the presence of gay bars as the most popular setting for social interaction for the sexual minority population as an important correlate for increased patterns of alcohol consumption behavior, citing availability and social norms within this setting as factors with the most predictive power (Green & Feinstein, 2012).

Less research has been completed that specifically looks at substance use patterns in transgender and bisexual individuals than for gay and lesbian individuals. However, according to Hughes and Eliason (2002), transgender and bisexual individuals may report substance use at higher rates and levels than gay and lesbian individuals because, in addition to being stigmatized and discriminated against by heterosexuals, they are also frequently discriminated against by the gay and lesbian population. This added level of discrimination and seclusion may increase levels of alcohol consumption following the stress-reduction conception of alcohol use (Butler et al., 2010; King et al., 2009; Marshal, et al., 2009; McKirnan & Peterson, 1988).

**Past and Current Interventions and Programs**

There have been various programs and interventions that have attempted to address the problem of adolescent alcohol use. Most of these have been school-based programs that have proven to be ineffective at reducing levels of adolescent alcohol consumption (Ennett, Tobler, Ringwalt, & Flewelling, 1994). These programs have used an educational paradigm which attempts to teach students about the negative impacts of drug and alcohol use early on in the
developmental stages of school aged children, many times before they have even been directly or indirectly exposed to these substances and, sometimes, before they have the cognitive capacities to understand the materials being presented by the programs.

The most popular and widely known program was Project D.A.R.E. (Drug Abuse Resistance Education). D.A.R.E. was created by the Los Angeles Police Department and the Los Angeles Unified School district in 1983 (Ennett, et al., 1994). By 1986, Project D.A.R.E. had been adopted by more than 50% of local school districts throughout the United States and worked with students in elementary, middle, and high school. D.A.R.E.’s core curriculum consisted of 17 lessons that focused on teaching students the skills needed to identify, distinguish, and resist peer and social pressures to use and abuse substances. Additionally, students practiced decision-making and choosing healthy alternatives to using drugs (Ennett, et al., 1994). However, according to Ennett, et al. (1994), project D.A.R.E. showed little impact or effectiveness in reducing the use of alcohol by adolescents. Students enrolled in project D.A.R.E. were found to be just as likely as students not enrolled in the program to use all substances except for tobacco. Additionally, in a ten-year follow-up study that aimed to look at the long-term effectiveness of Project D.A.R.E., participants who had completed the program were just as likely to abuse alcohol as participants who had not completed the program (Lynam, et al., 1999). In fact, the general consensus of Project D.A.R.E. is that drug education in schools causes kids to take on drugs and alcohol at younger ages than they would without the education. As kids who received education from Project D.A.R.E. get older, they become very curious about the drugs they have learned about from police officers or other public safety officials and are less likely to refuse offers to try such substances than those who did not receive such education.
More recently, schools across the United States have been adopting policies that incorporate the use of mandatory random drug testing of students who drive to school, or those who participate in extracurricular activities (Goldberg, et al., 2008). These programs operate under the assumption that students will be less likely to engage in substance use for fear of negative consequences of “being caught” such as, not being able to participate in sports or having their driver’s license suspended. Additionally, following the idea that adolescents are less likely to use drugs and alcohol if they are concerned about negative evaluation of such use by peers, parents, and school personnel, these programs use a “shaming” technique to effect change. However, the effectiveness of these programs with regards to their impact at reducing adolescent alcohol and drug use have been put into question. Unfortunately, “random” drug testing in schools does not seem to be the answer and has not been effective to reduce adolescent alcohol use and abuse (Goldberg et al., 2008; James-Burdumy, Goesling, Deke, & Einspruch, 2012). Additionally, these programs have focused on certain groups of students (students who drive, or students who play sports) and are, therefore, not “random.” They may miss students who are engaging in heavy alcohol and drug use. Additionally, the impact of the fear or shame that was thought to be instilled in students by this type of program was highly overestimated. Reporting positive results to students’ parents also did not deter students from subsequent alcohol use (Goldberg et al., 2008). The lack of negative reaction by these parents who may not see underage drinking as a problem may help explain this finding.

With regards to participation in extracurricular activities, we know there is a positive correlation between participation and academic achievement, as well as psychological well-being. Students who experience harassment at school are significantly less likely to participate in these activities (GLSEN, 2013). Additionally, when GLBT students do participate in
extracurricular activities, they are significantly less likely than their heterosexual counterparts to be leaders or officers for their groups. “Students were most likely to be involved in subject-matter clubs (41.7%) and arts-related activities, with nearly half participating in band, orchestra, chorus, or choir (45.6%) and about a third participating in a school play or musical (34.4%)” (GLSEN, 2013).

As previously mentioned, research has demonstrated the predictive power of parental attitudes on adolescent alcohol consumption patterns (Scheer et al., 2000; Sylvie & McCay, 2013). These findings provide support for the emphasis on parental involvement with alcohol prevention programs. Koning, Maric, MacKinnon, and Vollebergh (2015) examined the impact of parental involvement on outcomes associated with a pilot alcohol prevention program for adolescents. Parent-student intervention was found to increase parental strictness, which was related to increased adolescent self-control of drinking behaviors. In addition to parental strictness (specifically, strict rule-setting), qualitative conversations (moderated during programming) about parental expectations of postponing alcohol experimentation were also found to increase self-control in adolescents (Koning et al., 2015).

**Purpose of the Present Study**

The present research was conducted to identify groups of adults who were at heightened risk for alcohol consumption, as adolescents, as well as explore the motivations that these individuals have or report having for using alcohol presently. Three separate but related hypotheses were tested by the current study.

The study attempts to address the common conception that certain populations (i.e., rural adolescents and sexual minority adolescents) are at a higher risk for developing problems with alcohol consumption. This conception often comes from a tension reduction theoretical
framework (Butler et al., 2010). Tension reduction theory provides a theoretical framework that people consume alcohol to reduce tension and stress. Therefore, people are motivated to consume alcohol when they experience stressors (Butler et al., 2010).

The first hypothesis, therefore, is that the amount of stress one reports experiencing during adolescence (as measured by the retrospective adaptation of the PSI) will predict the amount of alcohol one consumed during this time. Because rural adolescents and GLBT adolescents have been shown in past research to report significantly more stress than their urban and heterosexual counterparts, it is possible these adolescents will report more alcohol consumption. However, this hypothesis only takes stress into consideration. So, if stress does not predict alcohol consumption during adolescence, we want to know other motivations this population has for drinking.

Secondly, because different groups of adolescents experience different types of stressors, it is hypothesized that there will be a significant difference in the motives (Social, Coping with Anxiety, Coping with Depression, Enhancement, and Conformity) most greatly endorsed for drinking (as measured by the DMQ-R, scored from 5-25) between Rural and Urban participants, as well as between GLBT and heterosexual participants, when reporting on motivations for drinking during adolescence. If motivations do differ significantly between community types or between sexual orientation, the current study is interested in developing a more comprehensive understanding of which motivations are most prevalent to adolescents of differing backgrounds.

The final goal of the current study is to assess the differences in alcohol consumption between groups to determine whether during adolescence, as well as during adulthood, if significant differences exist between urban and rural participants and between heterosexual and GLBT participants with regards to the amounts of alcohol they report consuming. That is, the
current study wishes to explore the trajectories of alcohol use among participants from the populations of interest.

CHAPTER TWO: METHODS

Participants

Participants were recruited from undergraduate psychology courses at Marshall University and through the use of Amazon’s Mechanical Turk (M-Turk), a marketplace for work online that requires human intelligence and that makes accessing human intelligence “simple, scalable, and cost-effective” (Amazon Web Services, 2013). In order to participate, individuals (18 years of age or older) must have grown up in, as well as presently live in, a community of the United States that could be determined to be either urban or rural through the use of the 2015 Beale Rural-Urban Continuum Codes which distinguish each county of the United States by population size (USDA-ERS, 2015). For this reason, participants who did not grow up in or presently live in the United States were directed out of the survey.

A total of 459 surveys were collected by utilizing Amazon’s Mechanical Turk (MTurk), the SONA research system at Marshall University, and through posting links for the survey on various social media sites. Links to the survey were also posted on the Marshall University LAMBDA society’s Facebook page, as well as area GLBT organizations to increase the participation of GLBT individuals. These individuals had the choice to either log onto their Amazon account and be paid through Amazon’s MTurk, log on through the SONA system to receive extra credit in psychology courses, or directly click the link to the Qualtrics survey and forgo compensation. The surveys of 110 participants were excluded from data analysis because of early technical difficulties with regards to the structure of the online survey hosted by the Qualtrics system, resulting in a total sample size of 349 participants.
The sample size reflected diversity with regards to community type and sexual orientation, as well as other variables not involved in the primary analyses of the current study. The majority of participants (67.62%) were heterosexual and 32.38% were GLBT. Further breakdown shows that 5.44% of participants were gay, 7.74% were lesbian, 12.32% were bisexual, 2.29% were transgender, and 4.59% described themselves as “other” with regards to sexual orientation. When coded as currently living in a rural or urban community, the majority of participants (56.73%) were from rural areas and 43.27% were from communities coded as urban. The majority of participants (51.86%) also indicated that they spent their adolescent years living in a rural area, while 48.14% of participants reported living in an urban community during adolescence. More than half (65.33%) of the respondents were female.

To ensure normality and linearity of the data, outliers beyond three standard deviations from the mean for each dependent variable were removed from analysis. For an exact indicator of cut points and total number of cases removed from each analyses, please refer to Table 1. and Table 2.

<table>
<thead>
<tr>
<th>Table 1. Outliers Removed from Retrospective Scales</th>
<th>AUDIT-C Retro</th>
<th>MDMQ-R Retro Social</th>
<th>MDMQ-R Retro Anxiety</th>
<th>MDMQ-R Retro Depression</th>
<th>MDMQ-R Retro Enhancement</th>
<th>MDMQ-R Retro Conformity</th>
<th>PSS Retro</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUT POINT</td>
<td>6.45</td>
<td>30.78</td>
<td>20.30</td>
<td>42.74</td>
<td>30.46</td>
<td>23.61</td>
<td>37.28</td>
</tr>
<tr>
<td>CASES REMOVED</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2. Outliers Removed from Current Scales</th>
<th>AUDIT-C Current</th>
<th>AUDIT-C Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUT POINT</td>
<td>10.99</td>
<td></td>
</tr>
<tr>
<td>CASES REMOVED</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Data Collection

Amazon’s Mechanical Turk (M-Turk) is a marketplace for work that requires human intelligence (Amazon Web Services, 2013) which splits users into developers and workers. Workers access the Human Intelligence Task (HIT) uploaded by the developer. Developers use HIT’s to collect a robust amount of data in short amounts of time. In order to be a developer or a worker, one must have an Amazon account that is linked to a PayPal account so they can pay Amazon for HITs or be paid by Amazon to complete HITs.

M-Turk has the ability to accept or reject workers to participate in a survey. If workers do not meet the qualifications set forth by the developer to answer the survey, they will not be able to continue past that point, or be paid. For example, because this study required United States citizenship (or living status), participants indicating they did not grow up in or currently live in the United States were not able to complete this survey. Additionally, if participants indicated they were under 18 years of age, they were directed out of the survey. To ensure participant anonymity and confidentiality, all information provided on M-Turk by workers is anonymous and is collected on a third party survey website (Qualtrics). Developers pay Amazon and Amazon pays workers, so it is not possible for survey responses to be tied to a specific worker. Participants using M-Turk to complete the survey were given $0.08 for participating in the survey.

Participants from undergraduate psychology courses at Marshall University completed the survey by accessing it on the SONA research website. Participants were awarded extra credit in their respective psychology courses following their participation in the survey.

Participants accessing the survey directly through social media or direct Qualtrics link were not compensated for participation.
Surveys were not marked with any information that could identify an individual. The present research was hosted with secure online survey software, Qualtrics (http://www.qualtrics.com), which allows researchers to design and host surveys completely online. This software uses Security Sockets Layer protocol to securely collect and store data, allows for multiple question types (i.e., single and multiple response, response grids, numeric, and open-ended), and is compatible with MTurk and SPSS statistical analysis software. All data collected was password protected.

**Measures**

**Demographic Characteristics.** Demographic information was collected from each participant regarding the following characteristics: age, sex, sexual orientation, race/ethnicity, current state and county (or zip code), state and county of adolescence (or past zip code), and age of first drinking experience. Participants were not forced to provide information on any given characteristic and could complete the survey without answering items regarding demographics.

**AUDIT-C.** A retrospective adaptation of the Alcohol Use Disorders Identification Test for Consumption was created to assess individuals’ levels of reported alcohol use during adolescence (ages 11-18). The AUDIT-C was also used to explore current alcohol use reported by participants.

The AUDIT-C is a 3-item alcohol screening tool (scored from 1-12) that can help identify hazardous drinkers and is a modified version of the original 10-item AUDIT instrument. Considering validity, as well as reliability, the AUDIT-C ranks very high. The AUDIT-C showed good psychometric properties and has clear advantages for assessing severity of alcohol consumption behaviors because of its brevity (Rumpf, Wohlert, Freyer-Adam, Grothues, & Bischof, 2013).
Participants answered the three questions on the retrospective adaptation of the AUDIT-C about each year during adolescence. That is, an AUDIT-C score for ages 11-18 was determined. Their scores were then added together and divided by 8 (the total number of ages inquired about) to come up with an average score that reflected the average level of consumption for each of the three questions. These numbers were then added together to give the AUDIT-C (retrospective) score for each participant reflecting alcohol use during adolescence. Participants also completed the AUDIT-C in its original format in order to provide information about current alcohol consumption. This means each participant had two scores related to the AUDIT-C; a retrospective AUDIT-C score reflecting alcohol consumption during adolescence and an AUDIT-C score showing current levels of alcohol consumption.

MDMQ-R. The Modified Drinking Motives Questionnaire-Revised (MDMQ-R) contains 28 reasons why people might be motivated to consume alcohol. Participants rate each of the 28 reasons for drinking on a scale from 1 to 5, with a score of “1” indicating you never or almost never experienced the item as a motivating factor for alcohol consumption and a score of “5” meaning you almost always or always saw this item as a motivation for drinking. The measure yields five scale scores reflecting different motives for drinking alcohol (i.e., social, coping-anxiety, coping-depression, enhancement, and conformity).

Each scale is scored independently and scores range from 5-25 for the social, enhancement, and conformity scales, from 5-20 for the coping-anxiety scale, and from 5-45 for the coping-depression scale, with higher scores indicating higher endorsement of each of the scales. That is, a score of 35 on the coping-depression scale indicates a higher drinking motive related to coping with depressive symptomology than a score of 12 on this scale.
A retrospective adaptation of the MDMQ-R was created by the primary researcher to assess the motives for drinking during adolescence for participants in this study. The original MDMQ-R was also used to assess current motivations for drinking for the same participants. Psychometric properties of the MDMQ-R, including reliability and validity, were found to be strong within and between subscales when tested on a population of undergraduate students (Grant et al., 2007).

**PSS.** The Perceived Stress Scale (PSS) is a 10-item screening tool that is used to assess the amount of stress an individual perceives that they experience. Participants rate on a 5-point scale how often they experienced or felt a particular symptom of stress. Scores are obtained by reversing the scores on the four positively stated items and summing the scores for all 10 items. Items 4, 5, 7, and 8 are the positively stated items. Scores range from 0 to 4 for each item and scores on the scale range from 0 to 40 where higher scores indicate more stress perceived by the participant (Al kalaldeh & Abu Shosha, 2012).

A retrospective adaptation of the PSS was created in order to estimate the level of perceived stress experienced by each participant during adolescence. The original PSS was also used to estimate current levels of perceived stress by each participant. Al kalaldeh and Abu Shosha (2012) examined the psychometric properties of the PSS and found that reliability and validity are strong for the assessment as it successfully explores the development and maintenance of stress levels.

The full questionnaire developed for this research is included in Appendix B of this dissertation.
CHAPTER THREE: RESULTS

The Predictive Power of Stress on Adolescent Alcohol Consumption

In order to address the first hypothesis (level of stress predicts level of alcohol use), a simple linear regression was conducted. The results from this statistical analysis allowed for determination of whether the amount of stress a participant endorsed during adolescence predicted the amount of alcohol they endorsed drinking during this time period from a stress-reduction theory of alcohol use.

Although the predictive power of stress level on alcohol consumption is approaching significance with increased sample size, currently, the ability of PSS scores to predict AUDIT-C scores during adolescence is not statistically significant. In other words, reported levels of stress did not share a significant proportion of the variance in reported alcohol consumption, $R^2 = .007$, $F(1, 337) = 2.30, p > .05$. In the current model, PSS scores did not significantly predict AUDIT-C scores during adolescence, $B = .02$, $t(338) = 1.52, p > .05$.

Differences in Motivations for Drinking during Adolescence

A two-way between groups multivariate analysis of variance (MANOVA) was performed to investigate whether there was a significant difference in the motives (Social, Coping-Anxiety, Coping-Depression, Enhancement, and Conformity) most greatly endorsed for drinking (as measured by the retrospective adaptation of the MDMQ-R) between rural and urban participants and between heterosexual and sexual minority participants. The five dependent variables used were scores on the five scales of the MDMQ-R (listed above). The independent variables were community type and sexual orientation. Preliminary assumption testing was conducted to check for normality, linearity, and homogeneity of variance matrices.
Multivariate analyses showed a statistically significant difference between sexual orientation and the combined dependent variables, $F(5, 331) = 2.72, p < .05$; Wilks’ Lambda = .96; partial eta squared = .04. This indicates that a significant difference was observed with regards to the five scales on the MDMQ-R; however, further scrutiny must occur to determine where this difference lies. Neither community type, nor the interaction between sexual orientation and community type, were shown to differ significantly with regards to the combined dependent variables.

Although rural and urban participants’ motivations for drinking during adolescence were not shown to differ significantly, the means and standard deviations for these participants are reported in Table 3. Understanding the motives most greatly endorsed by these individuals is integral to developing a complete discussion of the implications of the results presented. As can be seen in this table, both urban and rural participants endorsed coping with depression as the biggest motivator for drinking alcohol. Coping with anxiety was the least endorsed motivation for both community types.
Table 3. Means and Standard Deviations for MDMQ-R Scores (Community Type)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Community Type</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>Urban</td>
<td>12.31</td>
<td>6.23</td>
<td>168</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>11.39</td>
<td>5.93</td>
<td>181</td>
</tr>
<tr>
<td>Coping-Anxiety</td>
<td>Urban</td>
<td>7.59</td>
<td>4.08</td>
<td>168</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>6.88</td>
<td>4.03</td>
<td>181</td>
</tr>
<tr>
<td>Coping-Depression</td>
<td>Urban</td>
<td>14.48</td>
<td>8.33</td>
<td>168</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>13.80</td>
<td>8.20</td>
<td>181</td>
</tr>
<tr>
<td>Enhancement</td>
<td>Urban</td>
<td>11.51</td>
<td>6.28</td>
<td>168</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>10.66</td>
<td>6.15</td>
<td>181</td>
</tr>
<tr>
<td>Conformity</td>
<td>Urban</td>
<td>8.82</td>
<td>5.07</td>
<td>168</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>7.59</td>
<td>4.32</td>
<td>181</td>
</tr>
</tbody>
</table>

Considered separately, the Levene’s Test of equality of Error Variance was violated by two of the five dependent variables. Therefore, the alpha levels for the MDMQ-R (retrospective) Coping-Depression and Conformity scales were adjusted to .01. In regards to sexual orientation (during adolescence) there was a statistically significant difference in scores on all five scales. With regards to the Social Scale, \( F(1, 335) = 5.28, p < .05 \), partial eta squared = .02, GLBT participants \( (M = 12.87, SD = 5.75) \) reported social motives for drinking at a higher rate than their heterosexual counterparts \( (M = 11.40, SD = 6.21) \). When reporting motives for drinking relating to coping with anxiety, GLBT individuals \( (M = 7.90, SD = 4.17) \) endorsed this motive significantly more than heterosexual participants \( (M = 6.95, SD = 3.99) \), \( F(1, 335) = 4.98, p < .05 \).
.05, partial eta squared = .02. For both groups, this was the lowest endorsed motivation for drinking alcohol. When it came to coping with depression, individuals identifying with a sexual minority group (\(M = 16.12, SD = 9.03\)) endorsed this motive for drinking at a higher rate than heterosexual individuals (\(M = 13.22, SD = 7.72\)), \(F (1, 335) = 10.02, p < .01, \) partial eta squared = .03. For both groups, this was the motivation most greatly endorsed for drinking alcohol. There were significant differences between the sexual minority participants (\(M = 12.19, SD = 6.30\)) and heterosexual identifying participants (\(M = 10.59, SD = 6.14\)) with regards to the enhancement scale, \(F (1, 335) = 5.89, p < .05, \) partial eta squared = .02, with GLBT participants endorsing this motive for drinking more than heterosexual participants. Finally, there were also significant differences between the sexual minority group (\(M = 9.22, SD = 5.01\)) and the heterosexual group (\(M = 7.76, 4.58\)) with regards to the Conformity scale, \(F (1, 335) = 8.66, p < .01, \) partial eta squared = .03. Neither the interaction between community type and sexual orientation, nor community type alone, was found to differ significantly with regards to the separate dependent variables.

For a complete representation of the means and standard deviations, please see Table 4.
Table 4. Means and Standard Deviations for MDMQ-R Scores (Sexual Orientation)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Sexual Orientation</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>Heterosexual</td>
<td>12.87</td>
<td>5.75</td>
<td>236</td>
</tr>
<tr>
<td></td>
<td>Sexual Minority</td>
<td>11.40</td>
<td>6.21</td>
<td>113</td>
</tr>
<tr>
<td>Coping-Anxiety</td>
<td>Heterosexual</td>
<td>7.90</td>
<td>4.17</td>
<td>236</td>
</tr>
<tr>
<td></td>
<td>Sexual Minority</td>
<td>6.95</td>
<td>3.99</td>
<td>113</td>
</tr>
<tr>
<td>Coping-</td>
<td>Heterosexual</td>
<td>16.12</td>
<td>9.03</td>
<td>236</td>
</tr>
<tr>
<td>Depression</td>
<td>Sexual Minority</td>
<td>13.22</td>
<td>7.72</td>
<td>113</td>
</tr>
<tr>
<td>Enhancement</td>
<td>Heterosexual</td>
<td>12.19</td>
<td>6.30</td>
<td>236</td>
</tr>
<tr>
<td></td>
<td>Sexual Minority</td>
<td>10.59</td>
<td>6.14</td>
<td>113</td>
</tr>
<tr>
<td>Conformity</td>
<td>Heterosexual</td>
<td>9.22</td>
<td>5.01</td>
<td>236</td>
</tr>
<tr>
<td></td>
<td>Sexual Minority</td>
<td>7.76</td>
<td>4.58</td>
<td>113</td>
</tr>
</tbody>
</table>

Although these analyses are able to provide an understanding of differences between motivations for drinking of heterosexual and GLBTO participants, additional analyses are required to determine whether there are significant differences between the motivations most greatly endorsed by GLBTO participants and whether these motivations differ based on sexual orientation. Through a comparison of means, we can see that GLBTO participants endorsed all five of the motivations for drinking at significantly higher levels than heterosexual counterparts. By examining the means, it is apparent that GLBTO participants ranked coping with depression as the highest motivation for drinking ($M = 16.12$), followed by social motivations ($M = 12.87$), enhancement motivations ($M = 12.19$), motivations related to conformity ($M = 9.22$), and lastly,
motivations for coping with anxiety ($M = 7.90$). Further scrutiny should be taken to develop a more comprehensive understanding of these motivations for drinking.

**Differences in Current Alcohol Consumption**

A 2x2 between groups analysis of variance (ANOVA) was conducted to look at the influence of sexual orientation and community type on current reported alcohol consumption (as measured by the AUDIT-C). The independent variables were sexual orientation (heterosexual and sexual minority) and community type (rural and urban). The dependent variable was reported alcohol consumption (as measured by the AUDIT-C).

There was a significant difference between the two categories for sexual orientation on the AUDIT-C, $F (1, 346) = 7.57$, $p < .05$, partial eta squared $= .02$. Heterosexual participants reported significantly different levels of alcohol consumption than participants who identified as GLBT. It is notable that the difference between community types (rural and urban) on the AUDIT-C is approaching significance and can currently be considered moderately significant, $F (1, 346) = 3.52$, $p = .06$, partial eta squared $= .01$. The interaction between community type and sexual orientation was not statistically significant with regards to current AUDIT-C scores.

On the AUDIT-C, participants who identified with a sexual minority group ($M = 3.40$, $SD = 2.60$) scored significantly higher than their heterosexual counterparts ($M = 2.46$, $SD = 2.57$). GLBTO participants reported higher levels of alcohol consumption than their heterosexual counterparts. With regards to the moderately significant differences observed between community types, participants who reported being from a rural community ($M = 3.20$, $SD = 2.84$) endorsed higher levels of current alcohol consumption than participants living in urban communities ($M = 2.43$, $SD = 2.38$).
Differences in Alcohol Consumption during Adolescence

A two-way between groups analysis of variance (ANOVA) was performed to compare adolescent alcohol consumption, as measured by the retrospective adaptation of the AUDIT-C, between sexual orientations and community types. The independent variables were sexual orientation (heterosexual and sexual minority) and community type (rural and urban).

There was a significant difference between the two sexual orientations on the retrospective adaptation of the AUDIT-C, $F(1, 340) = 6.21, p < .05$, partial eta squared $= .02$. Heterosexual participants reported significantly different levels of alcohol consumption than participants who identified as GLBTO. There were no statistically significant differences observed for community type or for the interaction between community type and sexual orientation.

On the retrospective AUDIT-C, participants who identified with a sexual minority group ($M = 1.32, SD = 1.37$) scored significantly higher than their heterosexual counterparts ($M = .95, SD = 1.25$). GLBTO participants reported higher levels of alcohol consumption than heterosexual participants.

CHAPTER FOUR: DISCUSSION

The current research provides support to enhance our developing understanding of adolescent alcohol consumption culture and the factors associated with the decisions to drink alcohol by adolescents from various backgrounds. Additionally, by collecting current (adult) data, we are able to examine the trajectories of specific drinking behaviors of participants from diverse backgrounds. Community type and sexual orientation were factors taken into account when analyzing the data collected.
The finding that PSS scores (which measure levels of reported stress or anxiety) did not significantly predict the amount of alcohol consumed in the first analysis is very important. Not only does this finding disagree with the tension-reduction theory of alcohol use implicated by previous research in the field of underage alcohol consumption (McKirnan & Peterson, 1988; Biddle, et al., 1980; Greely & Oei, 1999), but it also gives further support to subsequent findings of the current research. Namely, coping with anxiety was the least endorsed motivation for drinking by all participants (no matter their community type or sexual orientation). So, although certain participants may report experiencing higher levels of anxiety (which may or may not be related to the cultural factors studied), these same participants did not report drinking behaviors which were motivated by a desire to cope with those increased levels of anxiety. Instead, coping with depression was the most highly endorsed motivation for drinking. Depression and anxiety are often thought to coincide, so, it is interesting to observe such dichotomous results.

Why did the results from the current research present such starkly contrasting results from other research on the role of alcohol to reduce tension or stress? As reported earlier, research on the impact of alcohol on stress levels focuses solely on the tension reduction theory. This research (McKirnan & Peterson, 1988; Biddle, et al., 1980; Greely & Oei, 1999) only takes anxiety or stress-reduction into account as a motivation for drinking and fails to consider other motivations for alcohol consumption. So, although stress reduction is definitely considered a motivation for drinking, it does not appear to be the most important with regards to the adolescent population. Additionally, just because certain groups of adolescents (rural and GLBT) are found to experience more stress than other groups (urban and heterosexual) in the literature, it does not appear that these stressors predict alcohol use patterns (i.e., those who
GLBTO participants endorsed all five motivations for drinking at significantly higher levels than heterosexual participants on this survey. The fact that GLBTO participants ranked each motivation higher than their heterosexual counterparts may indicate that they overestimated the amount of time they were motivated by a certain item. However, this difference could also point to discrepancies between opportunities for GLBTO participants versus heterosexual participants to engage in drinking behaviors. Namely, gay bars continue to be the primary social outlet for GLBTO identifying individuals (Green & Feinstein, 2012; Lee, Blayney, Rhew, Lewis, & Kaysen, 2016). When social outlets and settings are limited to those which make alcohol consumption normative and expected, it seems understandable that GLBTO individuals would report markedly different alcohol consumption patterns and motivations. Interestingly, and contrary to most research in the area, significant differences were not observed between urban and rural participants with regards to the motivations they cited for drinking alcohol.

When motivations are considered by the literature, it is important to remember that GLBTO adolescents are much more likely than their heterosexual peers to endorse depressive symptomatology, along with suicidal ideation, plan, and attempt, as well as self-harming behaviors (Almeida, et al., 2009; Garofalo, et al., 1998; Marshal et al., 2013) and this depression is likely to persist into adulthood. If these teens are indeed experiencing higher levels of depression, the current research gives light to this depression being a motivation for increased drinking behaviors. Interestingly, coping with depression was the most endorsed motivation for drinking for all groups of participants (rural, urban, heterosexual, and GLBT). This finding gives support to the importance of debunking the myth that alcohol is an agent for improving mood.
In addition to their higher levels of endorsed motivations for drinking alcohol, GLBT participants were also more likely than their heterosexual counterparts to report drinking during adolescence. This makes sense when thought about in the following manner: if adolescents are more motivated to drink alcohol and are motivated to greater levels by various types of impetuses, they will be more likely to engage in drinking behaviors. These findings also match what has been presented by most research in the field regarding adolescent and GLBT alcohol consumption (Butler et al., 2010; King et al., 2009; Marshal, et al., 2009; McKirnan & Peterson, 1988).

Differences were also observed between heterosexual and sexual minority participants with regards to current alcohol consumption patterns. GLBTO identifying participants scored significantly higher on the AUDIT-C than heterosexual participants. One explanation pulls from the minority stress theory, which was presented earlier as a factor influencing GLBT adolescents with regards to their alcohol consumption (Marshal, et al., 2009). Although adolescents are especially susceptible to falling prey to or experiencing victimization, discrimination, or oppression based on their sexual orientation, GLBTO adults are not immune to these same experiences and are, therefore, also not immune to the responses they may have to such experiences. In addition, the current research matches the results from the 2009 study by Marshall, et al. which suggest that “gay-related” stressors begin very early in life and continue throughout the course of life.

The only factor analyzed in which participants from rural versus urban community types scored differently was current alcohol consumption or drinking patterns during adulthood. Rural participants reported significantly more alcohol consumption than their urban counterparts. We have to question why these differences are observed in current levels of consumption and not
consumption during adolescence. These findings were somewhat different than the results of a recent literature review conducted by Dixon and Chartier (2016) for the National Institute on Alcohol Abuse and Alcoholism, who reported that urban residents were more likely to report lifetime alcohol use. Dixon and Chartier (2016) reported that although urban residents reported lifetime drinking behaviors more often, rural residents were more likely to endorse exceeding recommended daily and weekly drinking limits. They were also more likely to endorse symptoms of alcohol use disorders (AUDs) than adult residents of urban and suburban communities (Dixon and Chartier, 2016).

There are many factors which may shed light into understanding the significant findings of the current study with regards to current alcohol consumption. Unemployment rates and job opportunities, familial drinking patterns, availability of substance use treatment, the co-occurrence of additional mental health problems, and various social and cultural characteristics are all factors which should be taken into account.

Although unemployment rates are similar in rural and urban areas (USDA, 2014) the outlook for those in rural areas presents a much more problematic state of affairs. People from rural areas tend to perceive their chances for employment or re-hire as much lower than people from urban areas. Additionally, geographic isolation and social isolation which are more present in rural areas mediates the impact that unemployment rates have on people in rural regions. Specifically, poorer health related outcomes are associated with these higher unemployment rates (USDA, 2014).

With regards to familial patterns, men in rural areas whose fathers suffered from alcoholism were at increased risk to suffer from alcoholism as an adult (Komro, et al., 2010).
Paternal alcohol use is another possible factor influencing the current results that rural participants reported more alcohol use during adulthood than urban participants.

According to Bryden, Roberts, Pettigrew, and McKee (2012), several cultural factors including neighborhood attachment, supportiveness, and participation which they defined as “community social capital” are protective factors with regards to problematic drinking in adulthood. As described by Bryden et al. (2012), rural areas tend to have less community social capital, so people who live in these areas may be more likely to engage in problematic drinking behaviors like those described in the current research study.

Another cultural factor which could help explain the differences between rural and urban participants’ reports of drinking behavior during adulthood is the perception of enforcement of liquor laws and the level of funding for enforcement of such. Jackson, Denny, and Ameratunga (2014) reported that consumption rates are lower in communities wherein there is a perception of stronger enforcement of liquor laws and funding for such. It is certainly plausible that because there tends to be less presence of law enforcement personnel in rural areas, perception of the enforcement of liquor laws is also less and, therefore, people who live in those communities may engage in more problematic drinking behaviors.

There is a significant treatment gap between those who meet criteria for an alcohol use disorder and those who receive treatment for such (Substance Abuse and Mental health Services Administration, 2016). Specifically, approximately one in every ten individuals with a current alcohol use disorder receives treatment for that condition (SAMHSA, 2016). This disparity is even larger in rural areas where access to care and availability of treatment slots are more problematic (SAMHSA, 2016). The large treatment gap and lack of access to care are both
factors which implicate higher consumption rates for individuals living in rural communities as was found by the current research.

Finally, there is research that describes more co-occurring mental health conditions in rural communities than in urban communities (McDonald, Curtis-Schaeffer, Theiler, & Howard, 2014; Komro, et al., 2010). Specifically, rural inhabitants have been noted to experience depression and domestic violence, along with substance abuse, more often than people from urban communities (McDonald, et al., 2014). These co-occurring experiences may help explain the differences in reported alcohol consumption.

**Limitations**

Because the analyses presented are primarily based on retrospective data and rely on the participants’ memories for past behavior, some limitations are indicated. As time between an event and recall of the event increase, the accuracy of the memory is challenged (Rose & Grant, 2010). Combining an extended time period with alcohol use or abuse could make it sufficiently difficult for participants to precisely recall their past behaviors. If participants who reported heavy alcohol use during adolescence followed this consumption pattern trajectory through adulthood, it is possible that significant memory impairment may have occurred. Alcohol consumption has been linked to the disruption of hippocampal functioning and is linked to decreases in memory function (Rose & Grant, 2010). According to Rose and Grant (2010), because the hippocampus plays an important role in forming new memories, large doses of alcohol could inhibit one’s ability to form new memories and would make it difficult for one to accurately report memories for past drinking behavior. For example, if a participant drank to excess and passed out because of the amount of alcohol consumed, they may not remember that event (or only have a memory that was told to them by an observer), and, therefore, they may not
correctly report what happened. Additionally, extended and heavy patterns of alcohol consumption alter the brain indefinitely.

Another limitation regarding time takes into the account the differences in stressors and general experiences during the teenage years between current adolescents and the population of adult participants in the current study. Some of the participants in the current study were adolescents over 30 years ago so, their experiences may be much different than those of today’s adolescent population. Specifically, one factor which was not inquired about was age of “coming out.” As the average age of “coming out” continues to be younger, drinking experiences may also be different. Furthermore, just because participants currently identify with a sexual minority group does not mean they identified with this group during adolescence and this is a significant limitation to the current study. It would be beneficial to collect data from participants who are currently adolescents making decisions to drink or not; however, research with this protected population presents its own limitations and difficulties.

Additionally, some of the activities inquired about in the survey are illegal (e.g., underage drinking) and may cause a portion of the participants to worry about providing accurate answers without an understanding of how the information will be used. Because the survey relies on self-report data and actual consumption levels and patterns are not being objectively measured, participants are able to easily “fake good” or “fake bad” according to how they want to be perceived by the inquirer. Additionally, our perceptions of past behavior are easily impacted by current experiences (Johns & Saks, 2010). That is, if a GLBT participant was currently experiencing depression and was, therefore, drinking heavily, he or she may overestimate the motivating factor of depression on their adolescent drinking behaviors. Concurrently, our past experiences lead us to develop expectations and these affect current perceptions and, therefore,
those participants who drank as a means to cope with depression or to fit in with their peers during adolescence are likely to develop the self-perception that they must continue to use alcohol when being motivated by these factors.

The current study only asks about alcohol consumption patterns in adolescence, which was defined by the parameters of this study to be ages 11-18. Although this study was only interested in adolescent alcohol consumption patterns and not “childhood” alcohol consumption, an important limitation is that the study did not account for participants who began drinking prior to age 11. By default, these participants may have selected age 11 as their “initiation” age (the first memory of alcohol consumption) and this may not reflect an accurate picture of their experiences. In the future, it would be beneficial to provide participants with a “text-box” style response, versus forced choice, when asking about important age-related criteria. Additionally, those individuals aged 19-21 are defined as “adults”; however, it is still illegal for these individuals to drink alcohol, so these individuals may also fall into a category whose experience may not be fully accounted for by the current study. These individuals are “college-aged” individuals who may have different drinking patterns than older adults. In the future, it would be beneficial to consider smaller age groups when assessing their drinking experiences.

In regards to the findings regarding levels of alcohol consumption during adolescence, significant differences were not observed between rural and urban participants or between heterosexual and sexual minority participants. One limitation to this finding is that participants may not have identified as “heterosexual” or as “sexual minority” during adolescence (i.e., those participants who reported being part of a sexual minority group now may not have identified this way as an adolescent). Data collection from adolescents should occur to ensure a better understanding of whether significant differences occur between sexual orientations.
Implications of the Results

Although recent reports have described a small decline in adolescent drinking levels, alcohol use in this population continues to be a problem in the United States (NIAAA, 2013). Participants in the current study reported concerning levels of alcohol consumption during adolescence, no matter which community type or sexual orientation they identified with. A substantial proportion of participants reported alcohol consumption which would indicate a diagnosis of alcohol abuse or other alcohol use disorders as measured by the AUDIT-C. These findings have several implications for assessment, diagnosis, and intervention with the adolescent population. For mental health and other providers, it would be beneficial to incorporate an intersectional approach to cultural training when it comes to the aforementioned functions. This type of intersectional approach will require continued research into understanding the impact culture has on alcohol consumption.

School-based programs in the past, such as D.A.R.E., have not been successful at hindering the levels of underage consumption (Lynam, et al., 1999). In fact, providing students with information about substances in an attempt to help them, “Just say no” tends to backfire and only heightens the curiosity of students in these programs (Ennett, et al., 1994; Lynam et al., 1999). Because research continues to demonstrate the importance of parental involvement when it comes to preventing problematic drinking behavior, the current research gives additional support for family-based interventions which may focus on clear and honest communication regarding expectations for behavior, parental involvement in activities, and family therapy to address co-occurring mental health concerns. School-based or community programs should be developed which take into account individual differences between adolescents regarding the motivations for which they consume alcohol. If programs and interventions take a more holistic
approach to treat the underlying motivations for drinking, it is possible that better outcomes will be achieved than through solely treating the “problematic behavior.” By understanding the patterns of drinking by various groups of adolescents, as well as the motives they have for drinking, programs can be tailored to fit the needs of that group in order to achieve the best possible outcome for all adolescents.

With regards to the current research, it appears that the majority of participants surveyed fell prey to the misconception that consuming alcohol improves negative affect. That is, in terms of motivations for drinking, coping with depression was the most endorsed by participants when reporting adolescent drinking behaviors. Focusing on interventions which teach alternative techniques for dealing with depression may be implicated by this study. Encouraging cognitive-behavioral techniques to be introduced early on in the development of our youth to deal with depressive and suicidal symptomatology may prove more effective than drug education programs have in the past.

Because statistically significant results were found in the current study with regards to drinking alcohol and the motivations for such, further data collection and analysis should be conducted to provide a more comprehensive understanding of adolescent alcohol use in various populations. It would be beneficial to collect data from current adolescents, rather than retrospective data from participants who are currently in a different developmental stage of life. Additionally, it would be beneficial to analyze results to look at differences in motivations between Heterosexual, Gay, Lesbian, Bisexual, Transgender, and Other identifying adolescents. In the present study, we analyzed GLBTO participants as a homogenous group; however, considering these individuals separately will allow for a better look at possible differences between motivations for drinking.
The data obtained by the current study support the movement towards improved, culturally-informed training for the assessment, diagnosis, and treatment of adolescents who engage in problematic drinking behaviors. Results indicate that motivations for drinking during adolescence and throughout a lifetime differ for individuals of diverse cultural backgrounds and these motivations cannot be ignored when designing resources and implementing treatment programs. Several ideas for future research and interventions are presented in an attempt to expand efforts for early detection of risk factors of alcohol consumption and the treatment of such.
References


64


http://dx.doi.org/10.1007/s11121-009-0133-1


Appendix A

Letter from Institutional Review Board

Office of Research Integrity  FWA 00002704
Institutional Review Board  IRB1 #00002205
401 11th St., Suite 1300  IRB2 #00003206
Huntington, WV 25701

February 10, 2014

Keith Beard, Psy.D.
Psychology Department

RE: IRBNet ID# 562460-1
At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Beard:

Protocol Title: [562460-1] The Effects of Community Type and Sexual Orientation on Adolescent Alcohol Use: A Retrospective Exploration

Expiration Date: February 10, 2015
Site Location: MU
Submission Type: New Project APPROVED
Review Type: Exempt Review

In accordance with 45CFR46.101(b)(2), the above study and informed consent were granted Exempted approval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Designee for the period of 12 months. The approval will expire February 10, 2015. A continuing review request for this study must be submitted no later than 30 days prior to the expiration date.

This study is for student Karla Moore.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral) Coordinator Bruce Day, ThD, CIP at 304-696-4303 or day50@marshall.edu. Please include your study title and reference number in all correspondence with this office.
Appendix B

Sample Questionnaire

**Demographic Information**

Age: __________________

Sex you currently identify with:  
1. Male  
2. Female

Ethnicity:  
1. African American  
2. Asian  
3. Caucasian  
4. Hispanic  
5. Native America Indian  
6. Other: __________________

Sexual Orientation:  
1. Heterosexual  
2. Gay  
3. Lesbian  
4. Bisexual  
5. Transgender  
6. Other: ________________

County and State of Current Residence: _____________________________________________

County and State where you lived as an adolescent (ages 11-18):

________________________________________________________________________________

**Inventory Information (Retrospective):**

1. At what age did you take your first drink of alcohol? _____________________________

2. How often did you have a drink containing alcohol?  
(Please circle the answer that was correct for you at each age below).

<table>
<thead>
<tr>
<th>Age</th>
<th>Never</th>
<th>Monthly or Less</th>
<th>Two to four times a month</th>
<th>Two to three times per week</th>
<th>Four or more times per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>12</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>
### 3. How many drinks did you have on a typical day when you were drinking?
(Please circle the answer that was correct for you at each age below).

<table>
<thead>
<tr>
<th>Age</th>
<th>1 or 2</th>
<th>3 or 4</th>
<th>4 or 6</th>
<th>7 to 9</th>
<th>10 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>13</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
</tbody>
</table>

### 4. How often did you have six or more drinks on one occasion?

<table>
<thead>
<tr>
<th>Age</th>
<th>Never</th>
<th>Less than Monthly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or almost daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
</tbody>
</table>

**Drinking Motives Questionnaire- Revised (DMQ-R)**

**Instructions:** Listed below are 20 reasons people might be inclined to drink alcoholic beverages. Using the five-point scale below, decide how frequently your own drinking was motivated by each of the reasons listed during adolescence (ages 11-18).

<table>
<thead>
<tr>
<th>You Drank…</th>
<th>Almost Never/Never</th>
<th>Some of the time</th>
<th>Half of the time</th>
<th>Most of the time</th>
<th>Almost Always/Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a way to celebrate.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To relax.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>----------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Because I liked the feeling.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Because it is what most of my friends did when we got together.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To forget my worries.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Because it was exciting.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To be sociable.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Because I felt more self-confident or sure of myself.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To get a high.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Because it was customary on special occasions.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Because it helped when I was feeling nervous.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Because it was fun.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Because it made social gatherings more enjoyable.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To cheer me up when I was in a bad mood.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To be liked.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To numb my pain.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Reason</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Because it helped me when I was feeling depressed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>So that others wouldn’t kid me about not using.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To reduce my anxiety.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To stop me from dwelling on things.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To turn off negative thoughts about myself.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To help me feel more positive about things in my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To stop me from feeling so hopeless about the future.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because my friends pressured me to use.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To fit in with a group that I liked.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because it made me feel good.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To forget painful memories.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>So I wouldn’t feel left out.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## PSS: Perceived Stress Scale (Retrospective)

1. **During adolescence, how often were you upset because of something that happened unexpectedly?**

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
</tr>
</tbody>
</table>

2. **During adolescence, how often did you feel that you were unable to control the important things in your life?**

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
</tr>
</tbody>
</table>

3. **During adolescence, how often did you feel nervous or “stressed”?**

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
</tr>
</tbody>
</table>

4. **During adolescence, how often did you feel confident about your ability to handle your personal problems?**

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
</tr>
</tbody>
</table>

5. **During adolescence, how often did you feel that things were going your way?**

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
</tr>
</tbody>
</table>

6. **During adolescence, how often did you find that you were able to cope with all of the things that you had to do?**

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
</tr>
</tbody>
</table>

7. **During adolescence, how often were you able to control irritations in your life?**

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
</tr>
</tbody>
</table>

8. **During adolescence, how often did you feel that you were on top of things?**
9. During adolescence, how often did you feel angered because of things that were outside of your control?

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
</tbody>
</table>

10. During adolescence, how often did you feel difficulties were piling up so high that you could not overcome them?

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
</tbody>
</table>

**Inventory Information: Current**

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

<table>
<thead>
<tr>
<th>Never</th>
<th>Monthly or less</th>
<th>Two to four times a month</th>
<th>Two to three times per week</th>
<th>Four or more times per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>1 or 2</th>
<th>3 or 4</th>
<th>5 or 6</th>
<th>7 to 9</th>
<th>10 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Never</th>
<th>Less than monthly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or almost daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
</tbody>
</table>

**Drinking Motives Questionnaire- Revised (DMQ-R)**

**Instructions:** Listed below are 20 reasons people might be inclined to drink alcoholic beverages. Using the five-point scale below, decide how frequently your own drinking is motivated by each of the reasons listed.
<table>
<thead>
<tr>
<th><strong>You Drink…</strong></th>
<th><strong>Almost Never/Never</strong></th>
<th><strong>Some of the time</strong></th>
<th><strong>Half of the time</strong></th>
<th><strong>Most of the time</strong></th>
<th><strong>Almost Always/Always</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>As a way to celebrate.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>•</td>
</tr>
<tr>
<td>To relax.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>•</td>
</tr>
<tr>
<td>Because I like the feeling.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>•</td>
</tr>
<tr>
<td>Because it is what most of my friends do when we get together.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>To forget my worries.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>•</td>
</tr>
<tr>
<td>Because it is exciting.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>To be sociable.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>•</td>
</tr>
<tr>
<td>Because I feel more self-confident or sure of myself.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>To get a high.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>•</td>
</tr>
<tr>
<td>Because it is customary on special occasion.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>•</td>
</tr>
<tr>
<td>Because it helps me when I am feeling nervous.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>•</td>
</tr>
<tr>
<td>Because it’s fun.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>•</td>
</tr>
<tr>
<td>Because it makes a social gathering more enjoyable.</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>•</td>
</tr>
<tr>
<td>To cheer me up when I’m</td>
<td>•</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>•</td>
</tr>
</tbody>
</table>
in a bad mood.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be liked.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To numb my pain.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Because it helps me when I am feeling depressed.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>So that others won’t kid me about not using.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To reduce my anxiety.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To stop me from dwelling on things.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To turn off negative thoughts.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To help me feel more positive about things in my life.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To stop me from feeling so hopeless about the future.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Because my friends pressure me to use.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To fit in with a group I like.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Because it makes me feel good.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>To forget painful memories.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>
So I won’t feel left out.

PSS: Perceived Stress Scale (Current)

1. In the last month, how often have you been upset because of something that happened unexpectedly?

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

2. In the last month, how often have you felt that you were unable to control the important things in your life?

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

3. In the last month, how often have you felt nervous or “stressed”?

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

5. In the last month, how often have you felt that things were going your way?

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

6. In the last month, how often have you felt that you were able to cope with all of the things that you had to do?

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

7. In the last month, how often have you been able to control irritations in your life?

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
</table>
8. In the last month, how often have you felt that you were on top of things?

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
</tbody>
</table>

9. In the last month, how often have you been angered because of things that were outside of your control?

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
</tbody>
</table>

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

<table>
<thead>
<tr>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
</tbody>
</table>
KARLA B. MOORE, M.A.
Marshall University
CURRICULUM VITAE

CONTACT INFORMATION

158 Louie Place
Apartment 2210
Lexington, KY 40511
740.418.9773
k6moore@bop.gov

EDUCATION

08/2014-
Marshall University, Huntington, WV
Degree: Doctor of Psychology, APA-accredited Program
Anticipated Graduation: 08/2017
Current Cumulative GPA: 4.0

08/2012-08/2014
Marshall University, Huntington, WV
Degree: Master of Arts
Major: Clinical Psychology
Cumulative GPA: 4.0

08/2008-03/2012
The Ohio State University, Columbus, OH
Degree: Bachelor of Science, Cum Laude
Major: Psychology
Minor: Entrepreneurship
Cumulative GPA: 3.60

CLINICAL TRAINING AND EXPERIENCE

07/2016-Present
APA-Accredited Pre-Doctoral Internship in Clinical Psychology
Federal Medical Center – Lexington, KY, Federal Bureau of Prisons
Pre-Doctoral Psychology Intern
- General Rotation: Clinical Psychology (6 months)
- Specialty Rotations: Residential Drug Abuse Program and Dual Diagnosis Residential Drug Abuse Program (6 months), RESOLVE Program (6 months), Forensic minor rotation (3 months)

- Provision of direct clinical services to a culturally diverse male and female inmate population of varying security levels. Provide evidenced based individual therapy, brief counseling, psychoeducational groups, and group therapy for treatment of depressive disorders, bipolar
disorder, anxiety, post-traumatic stress disorder, adjustment disorders, substance related and addictive disorders, personality disorders, and schizophrenia spectrum/other psychotic disorders. Conduct comprehensive intake screenings on inmates arriving to the institution which included a clinical interview and review of available records. Complete psychological interviews, interventions, and assessments to evaluate Suicide Risk, Crisis Interventions, Risk of sexual Victimization/Abusiveness, Sexual Abuse Interventions, Intellectual Evaluations, Education/GED accommodation testing, testing for malingering, cognitive functioning, and diagnostic clarification. Attend monthly CCARE team meetings and provide information on various inmates on CARE2-MH and CARE3-MH catchment. Maintain a caseload between 20-25 CARE2-MH inmates and one CARE3-MH inmate. Develop individualized treatment plans, diagnostic and care level formulations, and interventions on an at least monthly basis.

- Completed an 8 hour per week forensic minor rotation (3-month duration), to assist with the completion of court ordered evaluations for forensic study inmates housed in general population and special housing unit. Studied case law for competency and Not Guilty by Reason of Insanity (NGRI) evaluations. Administered and scored a variety of neurological and psychological measures including: Minnesota Multiphasic Personality Inventory – II (MMPI-II), Personality Assessment Inventory (PAI), Wechsler Adult Intelligence Scale – Fourth Edition (WAIS-IV), Wechsler Abbreviated Scale of Intelligence (WASI), Test of Memory Malingering (TOMM), Structured Inventory of Malingered Symptomatology (SIMS), Structured Interview of Reported Symptoms (SIRS), Miller Forensic Assessment of Symptoms Test (M-FAST). Observed and conducted history and structured competency interviews.

- Currently completing a 24 hour per week general rotation (6-month duration), which emphasizes assessment, intervention, and consultation within a correctional setting. Conduct brief Receiving and Discharge (R&D) screening, Special Housing Unit (SHU) reviews and rounds, provide psychoeducational talks during Admission and Orientation (A&O). Implement clinical, legal, and ethical standards for suicide prevention in correctional settings and applicable Bureau of Prisons policy and documentation requirements. Observe and conduct crisis interventions, hunger strike evaluations, suicide risk assessments, and post-watch reports with inmates housed in general population and special housing unit. Provide daily intervention and monitoring for inmates placed on suicide watch. Consult with medical and correctional staff routinely to address mental health and behavioral management issues as they arise with inmates housed in the SHU.
Currently completing an 8 hour per week rotation (6-month duration) at the satellite women’s camp providing direct clinical services to a culturally diverse female inmate population. Assist with the Resolve program for female inmates by facilitating and co-facilitating therapeutic groups (Dialectical Behavior Therapy and Cognitive Processing Therapy), completing Resolve intake screenings and psychosocial evaluations, administering assessment batteries, completing diagnostic interviews, and providing evidence based individual therapy services. Psychosocial evaluations include the administration and interpretation of the Personality Assessment Inventory (PAI), Stressful Life Events Screening Questionnaire (SLESQ), and PTSD Symptom Scale Interview for the DSM-5 (PSSI-5). Participate in general clinical duties including: conducting comprehensive intake screenings for inmates arriving to the institution and responding to inmate requests for individual therapy.

Will complete a 32 hour per week rotation (6-month duration) in the Residential Drug Abuse Program (RDAP) and Dual Diagnosis Residential Drug Abuse Program (DD-RDAP), two unit-based residential treatment programs for substance abuse. Will participate in treatment team and community meetings, will provide individual and group therapeutic services to inmates with a history of substance abuse (and in some cases additional mental health diagnoses). Will facilitate a variety of RDAP and DD-RDAP phase and process groups. Training will also include various administrative components of RDAP including program screening reviews, eligibility requirements, and program review to ensure policy compliance.

Attended a number of Didactic Trainings including:

- Institutional Familiarization
- BEMR Navigation and Documentation
- BOP Learn
- OC Spray
- Domestic Violence, Sexual Assault, and Stalking
- Working with Female Inmates
- Forensic Medical Examinations: An overview for Victim Advocates
- Note Taking and Treatment Planning
- Competence to Stand Trial
- Incident Reporting
- Psychopharmacology
- Crisis management
- Suicide Prevention, Risk Assessment, and Intervention
- Program Review and Program Evaluation
- Muticultural Counseling
- Leadership in the BOP
08/2015- 07/2016  
**Rural Practicum**  
**STAR Community Justice Center, Franklin Furnace, OH**  
*Supervised Psychological Trainee*  

- Provided individual therapeutic services to residents of a rural, community based correctional facility to address dually diagnosed substance use disorders and other mental health disorders including, anxiety, depression, post-traumatic stress disorder (PTSD), borderline intellectual functioning, adjustment disorders, and personality disorders.  
- Completed diagnostic evaluations which included the administration of intelligence tests, achievement tests, malingering tests, attentional tests, and personality tests and developed integrated assessment reports.  
- Co-Led therapeutic groups addressing grief and loss.  
- Served as a consultant to case managers, teachers, and correctional staff to assist in the holistic treatment of residents.

Supervisor: Penny Koontz, Psy.D.

08/2014- 08/2015  
**Community Practicum**  
**Federal Correctional Institute, Ashland, KY**  
*Supervised Psychological Trainee*  

- Provided individual therapeutic services to inmates from an array of different backgrounds in a Federal Correctional Institute to address difficulties such as anxiety, depression, post-traumatic stress disorder (PTSD), delusional disorders, memory impairment, schizophrenia, and personality disorders.  
- Completed an assortment of assessment procedures that included intelligence tests, achievement tests, malingering tests, attentional tests, and personality tests and developed integrated assessment reports to aid in the holistic treatment of each inmate.  
- Consulted with the education department about the assessment of inmates and possible accommodations for GED testing.  
- Conducted monthly follow-ups with inmates who were designated as care2-mental health and weekly follow-ups with those inmates who were designated as care3-mental health.  
- Led and co-led therapeutic groups including: Mindfulness Based Cognitive Therapy, Basic Cognitive Skills, and Criminal Thinking.  
- Consulted with the medical department and participated in treatment team sessions for holistic care of inmates.  
- Engaged in medication reviews for those inmates prescribed or discontinuing psychotropic medications and attended telehealth
appointments with an off-campus psychiatrist to help address any medication issues which arose.

- Attended and participated in SHU meetings to coordinate treatment with various departments of each inmate housed in SHU

Supervisors: Braddon Garner, Psy.D. & Katherine Werner, Psy.D.

08/2014-08/2015  Additional Community Practicum
Marshall University H.E.L.P. Program, Huntington, WV
Diagnostician, Department of Diagnostics

- Assessment of children and adults primarily in the areas of learning, attention, and developmental disabilities.
- Scoring and interpretation of protocols administered and the development of diagnostic reports.

Supervisors: Debbie Painter, M.A., Charles Painter, M.A., & Marianna Footo-Linz, Ph.D.

08/2013-08/2014  Clinical Practicum
Marshall University Psychology Clinic, Huntington, WV
Supervised Psychological Trainee

- Provided therapeutic and integrated assessment services to college students, children, adolescents, couples, and adult clients from the community and University in a private pay, outpatient setting.
- Diagnosed and treated a variety of mental health disorders including attention deficit hyperactivity disorder, grief and loss, generalized anxiety, social phobia, anger management, major depression, emotional regulation difficulties, truancy from school, and oppositional defiance.
- Participated in community outreach services.

Supervisors: Penny Koontz, Psy.D. & Keith W. Beard, Psy.D.

08/2013-08/2014  Advanced Assessment Practicum
Marshall University Psychology Clinic, Huntington, WV
Supervised Psychological Trainee

- Administering and interpreting full-battery evaluations for autism, ADHD, learning disability, and personality disorders.

Supervisors: Jennifer Mills-Price, Psy.D. & Marianna Footo-Linz, Ph.D.

08/2013-05/2014  Head Start
Marshall University Psychology Clinic, Huntington, WV
Mental Health Consultant
- Tri-monthly site visits to three local Head Start classrooms to assist instructors with the referral process for children to receive individualized services addressing a range of needs, including attention deficit hyperactivity disorder, autism spectrum disorders, intellectual deficiency, global developmental delay, truancy and defiance.
- Development of behavioral and classroom management techniques
- Additional monthly visits for individual observation of students

Supervisors: Jennifer Tiano, Ph.D. & Michael Stinnett, M.A.

---

**EMPLOYMENT**

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/2015-06/2016</td>
<td>Marshall University Psychology Clinic</td>
</tr>
<tr>
<td>05/2015-06/2016</td>
<td>Marshall University, Huntington, WV</td>
</tr>
<tr>
<td></td>
<td><em>Graduate Assistant</em></td>
</tr>
</tbody>
</table>

- Assisted with administrative duties of a mental health clinic located on a university campus which provided services to college students and community members.
- Assisted with updating clinic protocol to ensure ethical bookkeeping practices, efficient service provision by beginning clinicians, and the provision of therapeutic resources.
- Served as a consultant to second year clinicians of the Psy.D. program at Marshall University who provided therapeutic services in the clinic.

Supervisor: Penny Koontz, Psy.D.

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/2015-12/2015</td>
<td>Cammack Children’s Center</td>
</tr>
<tr>
<td>08/2015-12/2015</td>
<td>Huntington, WV</td>
</tr>
<tr>
<td></td>
<td><em>Supervised Psychologist</em></td>
</tr>
</tbody>
</table>

- CCC is a Level II therapeutic group home for adolescents ages 12-17 who have been placed in the state’s custody due to legal issues
- Completed psychological evaluations including the following diagnostic measures: Beck Youth Inventories, BASC-2, CARS2: HF, Conners’ Rating Scales, d2 Test of Attention, Incomplete Sentences, MMPI-A, WASI-II, WAIS-IV, WISC-IV, and WRAT-4.
- Developed integrated diagnostic reports and master treatment plans to aid individual therapists and case managers with addressing issues related to conduct, defiance, aggression, anger, depression, anxiety, eating disorders, familial discord, truancy, ADHD, communication skills, and substance abuse.
• Completed suicide risk assessments and other assessments to identify self-harm behaviors.
• Developed individual behavior management plans for residents frequently engaging in maladaptive, problematic behavior and trained staff on the implementation of these plans.
• Served as a consultant for individual therapists, supportive counselors, dorm staff, case managers, medical staff, and teachers.

Supervisor: Rachel Arthur, M.A.

08/2013 - 08/2014
H.E.L.P. Program
Marshall University, Huntington, WV
Graduate Assistant/Diagnostian, Department of Diagnostics

• Assessment of children and adults primarily in the areas of learning, attention, and developmental disabilities.
• Scoring and interpretation of protocols administered and the development of diagnostic reports.

08/2012 - 08/2013
H.E.L.P. Program
Marshall University, Huntington, WV
Graduate Assistant/Tutor

• Provided academic tutoring for students at Marshall University with diagnosed specific learning disabilities and ADHD.
• Proctored exams, aided in daily studying and completion of homework assignments.
• Helped students with study skill building and scheduling techniques.

Supervisors: Nancy McCormick, M.A. & Debbie Painter, M.A.

SUPERVISION EXPERIENCE

08/2015 - 12/2016
Peer-to-Peer Supervision
Marshall University Psychology Department, Huntington, WV

• Provided supervision to a peer regarding clients seeking therapy or assessment in the Marshall University Psychology Clinic.
• Assisted with case conceptualization and treatment planning.
• Provided feedback through direct observation and video review of individual therapy sessions conducted by a peer.

Supervisor: Marty Amerikaner, Ph.D.

TEACHING EXPERIENCE

08/2015-
Graduate Teaching Assistant, Instructor
Present Marshall University Psychology Department, Huntington, WV
- General Psychology (PSY 201)

Supervisors: April Fugett-Fuller, Ph.D. & Steve Mewaldt, Ph.D.

01/2015- Graduate Teaching Assistant, Instructor
05/2015 Marshall University Psychology Department, Huntington, WV
- Individual Psychotherapy & Interviewing (PSY 633)

Supervisor: Marty Amerikaner, Ph.D.

RESEARCH EXPERIENCE

08/2013- Doctoral Dissertation
Present Marshall University Psychology Department, Huntington, WV
- Original data collection and analysis
- Predicting adolescent alcohol consumption behaviors and motivations from levels of perceived stress.
- Assessing patterns of alcohol consumption behaviors between community types (Rural vs. Urban) and Sexual Orientations (Heterosexual vs. Sexual Minority) in current and retrospective manners.

Committee: Keith W. Beard, Psy.D., April Fugett-Fuller, Ph.D., & Penny Koontz, Psy.D.

11/2013- Graduate Research Assistant
12/2016 Marshall University Psychology Department, Huntington, WV
Research Study: “Effects of Recalled Family Attitudes and Childhood Sexual Experiences on Adult Sexual Attitudes and Adjustment”
- Assisting in data collection through the use of online survey technology
- Participating in recruitment of participants

Supervisors: Keith W. Beard, Psy.D. & R. Vernon Haning, M.D.

06/2014- Graduate Research Assistant
10/2014 Marshall University Psychology Department, Huntington, WV
Research Study: MIHOW RCT Evaluation
- Assisted in preliminary and follow-up data analyses
- Wrote literature review for evaluation presentation

Supervisors: Marty Amerikaner, Ph.D. & Christopher LeGrow, Ph.D.
SCHOLARLY PRESENTATIONS


Moore, K., Beard, K., Fugett-Fuller, A., & Koontz, P. (March, 2014). The Effects of Ruralism and Sexual Orientation on Adolescent Alcohol Use: A Retrospective Exploration. Presented at the annual conference of the Appalachian Studies Association, Huntington, WV.

PUBLICATION


ADVOCACY & SERVICE

10/2014 West Virginia Psychological Association’s Lobby Day at State Capitol in Charleston, WV

05/2013-05/2015 Served as Campus Representative for the American Psychological Association of Graduate Students (APAGS) Advocacy Coordinating Team

08/2012 Psi Chi, Psychology International Honor Society, Marshall University

08/2012-Present Student Organized Advisory Panel (S.O.A.P.), Marshall University

COMMUNITY VOLUNTEERING

09/2015 Cabell-Huntington Hospital Senior Festival

09/2014
09/2013
- Conducted mental health screenings for older adults who attended the events; provided referral sources for individuals with elevated levels of depression, anxiety, and/or cognitive impairment.

10/2014
**Breakfast for Branches**
- Organized a departmental breakfast that raised funds for Branches Domestic Violence Shelter.

04/2014
**Habitat for Humanity**
- Volunteered with the Huntington, WV chapter for a day of building to aid in the construction of a home in the Tristate area.

**SPECIALIZED TRAINING**

09/2015
**Cognitive Assessment Using the WISC-V**
- 6-hour training to review the administration and scoring for each subtest as well as factors to guide accurate interpretation and decision making; instructed by Adam Scheller, Ph.D., Senior Educational Consultant with Pearson Clinical Assessment.

03/2015
**Trauma-Focused Cognitive Behavioral Therapy**
- 10-hour web-based course through Medical University of South Carolina: National Crime Victims Research & Treatment Center

04/2014
**DSM-5 Training: Problems and Prospects in the Diagnostic Revision**
- 8-hour training on the relevant changes of the DSM-5, as well as implications for differential diagnosis and treatment approach; instructed by Greg Neimeyer, Ph.D. from University of Florida

**HONORS & AWARDS**

12/2014
Dr. Madeline Hoffman Feil Memorial Scholarship, Marshall University

02/2014
Appalachian Studies Association Scholarship

12/2013
APAGS Excellence in Campus Leadership Award

**PROFESSIONAL AFFILIATIONS**
2015- Present  State, Provincial, & Territorial Psychological Association Affairs – APA Division 31, **Student Member**
2015- Present  Psychology of Women – APA Division 35, **Student Member**
2015- Present  Lesbian, Gay, Bisexual, and Transgender Issues – APA Division 44, **Student Member**
2013- Present  West Virginia Psychological Association (WVPA) **Student Member**
2012- Present  American Psychological Association (APA) **Student Affiliate**
2012- Present  American Psychological Association of Graduate Students (APAGS) **Full Member**
2012- Present  Psi Chi, *The International Honor Society in Psychology* **Full Member**

**REFERENCES**

**Keith Beard, Psy.D.**  
Psy. D. Program Director  
Professor  
Marshall University  
beard@marshall.edu  
304.696.2781

**Penny Koontz, Psy.D.**  
Assistant Professor  
Clinic Director, Campus Clinic  
Marshall University  
koontz7@marshall.edu  
304.696.2768

**Braddon Garner, Psy.D.**  
Chief Psychologist  
Federal Correctional Institute  
Ashland, KY  
bgarner@bop.gov  
606.926.4151

**Kat Werner, Psy.D.**  
Staff Psychologist  
Federal Correctional Institute  
Ashland, KY  
kwerner@bop.gov  
606.926.4150