# **Antioch University**

# **AURA - Antioch University Repository and Archive**

Antioch University Full-Text Dissertations & Theses

Antioch University Dissertations and Theses

2023

# When The Bough Breaks: Alcohol Misuse Among Jamaican **Young Adults**

Marsha Smith

Follow this and additional works at: https://aura.antioch.edu/etds



Part of the Clinical Psychology Commons

# WHEN THE BOUGH BREAKS: ALCOHOL MISUSE AMONG JAMAICAN YOUNG ADULTS

# A Dissertation

Presented to the Faculty of

Antioch University New England

In partial fulfillment for the degree of DOCTOR OF PSYCHOLOGY

by

Marsha Patricia Smith

ORCID Scholar No. 0000-0002-9058-5991

# WHEN THE BOUGH BREAKS: ALCOHOL MISUSE AMONG JAMAICAN YOUNG ADULTS

This dissertation, by Marsha Patricia Smith, has been approved by the committee members signed below who recommend that it be accepted by the faculty of Antioch University New England in partial fulfillment of requirements for the degree of

# DOCTOR OF PSYCHOLOGY

Dissertation Committee:

Karen Meteyer, PhD, Chairperson

Gina Pasquale, PsyD

Monique Bowen, PhD

Copyright © 2022 by Marsha Patricia Smith All Rights Reserved

#### ABSTRACT

# WHEN THE BOUGH BREAKS: ALCOHOL MISUSE AMONG JAMAICAN YOUNG ADULTS

#### Marsha Patricia Smith

### Antioch University New England

#### Keene, NH

The incidence of alcohol misuse globally continues to be a significant problem with copious adverse health and social causes and implications. The prevalence of alcohol misuse in Jamaica, British West Indies, instigated the trifold objective of this study. The ecological systems model provided a framework for conceptualizing multilayered biological and social processes that interact to determine mental health. This study examined anxiety and depression, family structure, and perceived parental warmth and control as predictors of alcohol misuse among young adults ages 18 to 30 residing in Jamaica. The current study revealed a correlation between alcohol misuse and higher levels of anxiety and depression, with women reporting higher anxiety and depression than men. In addition, there was a significant negative correlation between parental warmth and alcohol misuse. Parental warmth was correlated with the AUDIT; however, no significant correlation between alcohol misuse and family structure or parental overprotection was observed. Medical and mental health professionals should champion efforts to reduce the prevalence of alcohol misuse on a societal level by advocating for the implementation of community-based interventions that provide education around the deleterious effects of alcohol misuse on physical and mental health. This dissertation is available in open access at AURA (https://aura.antioch.edu) and OhioLINK ETD Center (https://etd.ohiolink.edu).

*Keywords*: alcohol misuse, predictor of alcohol misuse, perceived parental warmth, family structure, anxiety, depression, young adults

#### Acknowledgements

I am grateful for the support and assistance of those who invested their time and effort into making this project possible.

Dr. Karen Meteyer, thank you for your unwavering support. As my dissertation chair and advisor, your patience and guidance were unmatched. You generously shared your time and knowledge of quantitative research, and in the process, I developed skills as a researcher that I never thought was possible. I remain grateful for my newly found passion for research. Thank you for dedicating countless hours to my development as a researcher and future psychologist.

I want to also extend sincere gratitude to Dr. Gina Pasquale and Dr. Monique Bowen for their commitment to my growth throughout this doctoral program and for their integral role as members of my dissertation committee. You challenged me in ways that bolstered my acumen as a researcher and future psychologist, for which I am grateful. I sincerely appreciate the invaluable guidance you provided throughout this process and beyond.

Special thanks to my high school teacher and friend, Ms. Maria Bernard of Charlemont High School, and my cousins, Mrs. Latoya Aquart-Foster and Dr. Dave Foster, for providing a culturally sensitive lens throughout this project. Your knowledge of the local Jamaican culture provided depth and helped to steer this project.

Also, to my cohort members, Larissa Grundmanis and Jamie Leavey. Thank you for keeping me on track and for your friendship. I am fortunate to have you as colleagues and even luckier to have you as friends.

Lastly, thanks to Dr. Marianne Yoshioka, Mr. John Levinson, and the entire faculty and administrative staff of Antioch University New England for your integral role in my doctoral journey. It truly takes a village!

#### **Dedication**

This dissertation is dedicated to the people of Jamaica, particularly to the young people. You are my family—without family, we are like boats adrift.

I also dedicate this dissertation to one Jamaican above all others, my mother, Sylvia Codner-Callum, who continues to be my firm anchor. From a tender age, you taught me the importance of education, which you dutifully describe as my "passport to the future." Your sacrifices, unwavering support, and selfless commitment to my success are second to none. With this dissertation, I salute you! Your consistent encouragement propelled me forward and kept me on track when my knees buckled under the academic load. I remain grateful to you for the values you instilled in me even at a young age, serving as my moral compass today. Without you, this achievement would not be possible.

# Table of Contents

List of Tables	X
CHAPTER I: INTRODUCTION	1
Alcohol Misuse a Public Health Problem	1
Disordered Alcohol Use	1
Ecological Model Conceptualization of Alcohol Use	2
Historical Context of Alcohol Use in the Caribbean	3
Cultural Influence of Alcohol Use in Jamaica	4
CHAPTER II: LITERATURE REVIEW	6
The Jamaican Context: The Making of a Nation	7
A Brief History of Family Life Research in Jamaica	8
Likely Predictors of Alcohol Misuse	9
Mental Health as a Predictor of Alcohol Misuse	10
Family Structure as a Predictor of Alcohol Misuse	11
Perceived Parental Warmth and Control as Predictors of Alcohol Misuse	13
Gender Roles In Jamaica	15
Summary of Main Points and Significance	16
The Current Study	17
Research Questions and Hypotheses	18
CHAPTER III: METHOD	19
Participants	19
Measures	20
Perceived Parental Warmth and Control	20

Self-Report of Depression	22
Self-Report of Anxiety	23
Self-Report of Alcohol Use	23
Procedure	24
Analysis	25
CHAPTER IV: RESULTS	26
Alcohol Misuse and Depression/Anxiety	26
Family Structure and Levels of Alcohol Misuse	26
Parental Warmth and Control and Levels of Alcohol Misuse	26
Gender Differences	27
CHAPTER V: DISCUSSION	28
Differences Across Gender	28
Alcohol Misuse and Family Structure	31
Alcohol Misuse and Perceived Parental Warmth and Overprotection	31
Limitations and Future Directions	33
Implications and Clinical Relevance	34
Conclusion	37
References	39
APPENDIX A: PARTICIPANT DEMOGRAPHICS	47
APPENDIX B: TABLES	49

# <u>List of Tables</u>

Table 1 Demographic Characteristics	49
Table 2 Gender Differences in Depression, Anxiety, Alcohol Use and Parental	
Warmth/Overprotection	51
Table 3 Correlation Matrix for Alcohol Use, Anxiety, Depression, Parental	
Warmth/Overprotection	52

#### **CHAPTER I: INTRODUCTION**

Alcohol misuse is a global problem with many psychological, economic, health, and social causes and implications (Brady et al., 2007). The current study will focus on the island of Jamaica, a nation with a unique sociopolitical context.

#### **Alcohol Misuse a Public Health Problem**

As an island nation, Jamaica has a colorful and complex history of relationships with the outside world, including its European colonizer Great Britain. The Caribbean region has seen increasing rates of alcohol use over the past decades (Reid, 2015), and Jamaica is no exception (CICAD, 2019). Numerous concurrent studies have concluded that most adults with an alcohol use disorder (AUD) had their first contact with the substance in adolescence (Balogun et al., 2014). One recent study identified alcohol as the most commonly used substance among young adults aged 18 to 25 in Jamaica (CICAD, 2019). Anecdotal reports indicate that alcohol misuse is a significant public health problem in Jamaica. Moreover, many studies among alcohol users elsewhere suggest a strong correlation between anxiety, depression, and alcohol misuse (Reid, 2015). Inter-American Drug Abuse Control Commission (2010) found that 40% of the Jamaican population ages 12 to 65 misuse alcohol, with 75% reporting using the substance at some point during their lifetime.

#### **Disordered Alcohol Use**

For decades, alcohol addiction has been observed as a disorder that leads to physical disintegration, negative behavior, and emotional pain (Brady, 2014). AUD is a severe condition that affects hundreds of thousands of people in many countries, including Jamaica. AUD is a pattern of problematic alcohol use that involves a preoccupation with alcohol, difficulties governing one's drinking, and continuing to consume alcohol even when use proves problematic

(Sher et al., 2005). AUD is exceedingly complex. Similarly, alcohol misuse poses increased risks for adverse health and social consequences. It is defined by the Centers for Disease Control and Prevention (CDC) "as excess daily consumption (more than 4 drinks per day for men or more than 3 drinks per day for women), or excess total consumption (more than 14 drinks per week for men or more than 7 drinks per week for women), or both" (Centers for Disease Control and Prevention, 2018).

# **Ecological Model Conceptualization of Alcohol Use**

The investigators of this study will focus primarily on alcohol misuse among Jamaican young adults. Alcohol misuse can therefore be conceptualized through various theoretical approaches that focus on different sets of relevant variables to explain the acquisition and maintenance of excessive drinking (Eriksson et al., 2018). One such model is the ecological theory, specifically Bronfenbrenner's (1975) Ecological Model, though inadequate documentation and record keeping that neglects to fully detail the extensive impact of alcohol misuse on the individual and the wider Jamaican society limit the full application of the model to date.

Notwithstanding, the ecological paradigm is appealing as a conceptual tool for guiding public mental health interventions (Eriksson et al., 2018). It provides a way to simultaneously accentuate the individual and contextual structures and the interdependent relations between them (Eriksson et al., 2018). Bronfenbrenner's ecological systems theory—the process-person-context-time (PPCT) theory—is a helpful perspective for evaluating and studying alcohol use in Jamaica, where alcohol consumption is not considered illegal or morally inappropriate (Atkinson et al., 2015). The PPCT theory is fitting for studying this population because it focuses on human development through progressively complex reciprocal interactions

between a dynamic, evolving biopsychological human organism and the persons, symbols, and objects in the immediate environment (Bronfenbrenner, 1995; Rosa & Tudge, 2013). In Jamaica, the consumption of alcohol has been part of the collective psyche of the people since colonization, and overconsumption of alcohol continues to be a significant problem for Jamaican society (Reid, 2015). After all, alcohol use is primarily influenced by the environment in which it is consumed (Bronfenbrenner, 1975).

#### Historical Context of Alcohol Use in the Caribbean

Alcohol has a very intimate association with the Caribbean region in terms of both its history and culture (Reid, 2015). Islands such as Jamaica have historically produced a significant amount of sugarcane—a primary ingredient in the production of over-proof rum. In particular, Jamaica has a complex history with alcohol dating back to the 17th century after Great Britain colonized the island (Alderman, 1974). The prevalence of alcohol misuse in Jamaica grew hand in hand with the culture and traces back to Britain's colonization, during which the use of rum was ingrained in the diet and culture of Jamaican society. During this era, sugar barons (British plantation owners) made enormous profits trading sugar produced by enslaved people who were forced to work for free on sugar plantations (Alderman, 1974). In some cases, the enslaved people's only compensation for their labor was a serving of rum—an intoxicant made from molasses—a byproduct of sugar cane that served a dual purpose of compensation and numbing the enslaved plantation workers to the reality of their condition (Alderman, 1974).

To date, Jamaica produces the widest variety of rum in the world, and rum use remains a significant part of the Jamaican identity, with substantial historical, cultural, and economic impact. Rum use is intertwined with the island's culture, and historically rum use varied from purposes of medicinal use to merriment making (Foxcroft & Lowe, 1991). One can trace the

lingering effects of alcohol consumption in the region back to the rum trade, otherwise known as the "triangular trade" between the West Indies, New England, and Africa (Alderman, 1974). The trade involved sending molasses to New England, which traded rum with Africa in exchange for enslaved people. The trading of molasses for enslaved people between the regions maintained the prosperity of the northern colonies throughout the eighteenth century (Alderman, 1974).

# Cultural Influence of Alcohol Use in Jamaica

Alcohol use is largely accepted as a norm for Jamaicans and as part of their diet (CICAD, 2010), dating back to sugar plantation life during colonization, and is ingrained in the sociocultural fabric of Jamaican society at all class levels. In Jamaica, drinking is observed to be associated with both affluence and lack, with a different pattern of drinking between classes. Affluent Jamaicans are likely to drink in isolation or intimate settings. In contrast, it is generally observed that the "middle class" drinks in semiformal social settings, and the "lower class" drinks publicly in rum shops where congregants socialize daily. Though these observed patterns are long-standing, the consumption of alcohol is generally understood to be normative in Jamaica regardless of the social context. Alcohol use and its influence do not exist in a vacuum.

Notwithstanding, concerns about the harmful effects of alcohol misuse have prevailed throughout Jamaica's history. Atkinson et al. (2015) conducted a study assessing trends in substance use among Jamaican adolescents. They identified alcohol as the substance most widely used by Jamaican adolescents, with a lifetime prevalence of over 60%. The cultural acceptance of this substance has been attributed to Jamaica and the wider Caribbean's historical experience as producers of sugar cane and rum (Atkinson et al., 2015). Historically, the consensus is that alcohol misuse is linked to moral degradation, criminality, medical diseases, and other socially aberrant behaviors (Sutherland & Ericson, 2010).

Evidence of efforts to mediate alcohol use in Jamaica is lacking; thus, the investigator supposes that the prevalence of alcohol misuse remains problematic for Jamaica's young adults. An in-depth understanding of the effects of alcohol misuse both on an individual and societal level is crucial to conceptualize the level of intervention deemed most salient in stemming the deleterious effects of alcohol misuse in Jamaica. A suitable framework for such a conceptualization is the ecological systems theory, which is likely to play a crucial role in understanding how multilayered factors of biological and social processes interact (Eriksson et al., 2018) to determine mental health. Particular attention will therefore be given to the family system, seeing the best way to stem alcohol misuse among young adults is through prevention (Handren et al., 2016). Focusing on family systems may prove helpful in uncovering likely predictors of alcohol misuse. By exposing potential predictors of alcohol misuse at the family systems level, efforts can be made to target interventions geared towards helping caregivers model support and relational engagements (Handren et al., 2016) and provide appropriate supervision that can serve as a buffer against alcohol misuse in adolescence. Notwithstanding, no known study explored the contextual variables of perceived parental warmth and control, family structure, and underlying individual mental health challenges as likely predictors of alcohol misuse in Jamaican society.

#### **CHAPTER II: LITERATURE REVIEW**

The sequelae of excessive alcohol use are significant psychiatric conditions contributing to the mental health burden on the individual, their family, and society (Magnavita, 2012; Reid, 2015). Some predictors of alcohol misuse in the United States include psychiatric disorders, family history of alcoholism, and parenting practices (Handren et al., 2016; Schuckit & Smith, 1996; Sher et al., 1991). Though little research exists concerning alcohol misuse among Jamaican young adults, one recent noteworthy study by Bourne et al. (2021) in Jamaica revealed that though the COVID-19 pandemic exacerbated alcohol consumption among young adults 18 to 25, the propensity for this group to misuse alcohol was an existing concern. In addition, there are relatively few articles on this topic. In the aggregate, the published literature strongly suggests that research on alcohol use in the Caribbean, particularly in Jamaica, remains scarce compared with that in other regions.

Studies exploring alcohol use among Jamaican young adults are lacking. Data gathered from studies elsewhere reveal that adolescents who consume alcohol before age 15 are four times more likely than their peers who begin use later to experience future alcohol dependency problems (Grant & Dawson, 1997). International research indicates that alcohol use is associated with gender and parenting style in other countries, including France, Brazil, and Germany (Barnow et al., 2002; Ceitlin et al., 2009; Chakroun-Baggioni et al., 2021). In 2006, approximately 10 million adolescents in the United States reported using alcohol—of this group, 7.2 million were classified as binge drinkers (Pemberton et al., 2008). This trend is similar among Jamaican young adults, where alcohol use is ingrained in the sociocultural fabric of Jamaican society (Alderman, 1974). Heavy episodic drinking is accepted as a normative drinking pattern in Caribbean islands such as Jamaica (Reid, 2015).

Though not all young adults who consume alcohol develop a problematic relationship with the substance, several characteristics are hypothesized to predict alcohol-related difficulties (Barnow et al., 2002; Smith et al., 1995). One characteristic among Jamaican young adults not previously assessed is how gender influences alcohol use. Numerous factors were found to predict alcohol use in analogous research in other countries (Chakroun-Baggioni et al., 2021). It is, therefore, essential to look at Jamaica specifically. The current study will focus on alcohol use and mental health, particularly anxiety and depression, gender roles, and family life. Furthermore, to understand the Jamaican young adults' experience, one must first understand the context in which Jamaicans consume alcohol.

### The Jamaican Context: The Making of a Nation

Until 1962, Jamaicans were British subjects with a shared culture, but a love–hate relationship existed between the Jamaicans and the British. The Jamaicans resented British dominance, dictatorship, and racism; these factors would prove to be the driving force behind Jamaica's quest to become an independent nation (Buddan, 2004). Through periodic changes in the Constitution, Jamaicans were eventually granted more self-governance. These changes occurred between 1944 and 1962, a period known as the "constitutional decolonization," which shaped the country's political landscape (Buddan, 2004). During this era, Universal Adult Suffrage opened the way for locals to vote, and in the late 1950s, Jamaica joined the Federation of the West Indies (Buddan, 2004). Jamaica later withdrew and eventually achieved complete independence on August 6, 1962. An important note is that the earliest studies exploring family life and Jamaican culture were conducted in the region during the era of "constitutional decolonization."

# A Brief History of Family Life Research in Jamaica

By 1968 there were 10 published studies examining family patterns in Jamaica (Schlesinger, 1968), only three of which were conducted by Jamaicans. White researchers from elsewhere conducted most of the earliest foundational studies examining family patterns. These investigators approached research in Jamaica from a eurocentric cultural perspective. Conversely, Jamaican-born anthropologist Edith Clarke—although a White elite of European descent—challenged the racist biases of the colonial state and family planning institute. She argued that family life in Jamaica was situated first in African biology. As such, the idea that Jamaican culture was deemed inferior based on European standards and the underlying ethnocentrism, in particular, the Eurocentrism of social anthropology (Davenport, 1961), was to disregard the unique context of the people and their environment. Clarke circumvented the dominant stereotype of Afro-Caribbean families incorporated into the prevailing creed and prescribed predetermined social policy that assumed a causal link between poverty and family structure (Barrow, 1998). In the process, Clarke offered invaluable insight into the vibrant nuances of family life in the region that supports the idea that the quality of the relationship within a family system serves as an essential buffer against maladaptive behaviors (Barrow, 1998).

Early studies captured the complex dynamics of family life in Jamaica in five categories, further challenging the Eurocentric view of family patterns established elsewhere. Though the studies depicted only a limited lower-class subset of the population to the exclusion of other groups, unlike other researchers at the time, Clarke challenged the colonial state's institutionalized racism and sexism (Barrow, 1998). Her ethnographically based study on family examined kinship and social relations in colonial Jamaica, further avoiding the paternalism that

tinged colonial policy (Davenport, 1961). Her findings were later generalized across the West Indies and served as a framework for conceptualizing family life in the Caribbean. Schlesinger (1968) captures a helpful summary of the five categories of Jamaican family patterns established in the early studies:

Christian—based on marriage and a patriarchal order; faithful concubinage—patriarchal order, having no legal status but well established and lasting for at least three years; disintegrate or visiting family —consisting of women and children only, in which men merely visit the women from time to time; maternal or grandmother—the grandmother usually usurp the function of the father and at times of the mother; and keeper or companionate—a man and woman live in temporary union. If the union persists over a period of years, the union falls under the heading of faithful concubinage. (p. 137)

The categorization offers insight into the complexity of family patterns in Jamaica that holds to date, especially within kinship relationships. A conclusion drawn is that the most defining aspect of family life in Jamaica is the quality of relationships that unfolds in a community context rather than how closely the family conforms to the Eurocentric ideal of the two-parent nuclear family. Future research should employ a more contextually based way of understanding the Jamaican family experience without relying on a Eurocentric nuclear family-based lens, in particular. It is crucial to understand better different factors that may contribute to higher rates of alcohol consumption across the island.

### **Likely Predictors of Alcohol Misuse**

Globally, there are indications of a strong correlation between alcohol use disorders and anxiety and depression (Reid, 2015). Approximately 20% of individuals who suffer from depression have a problematic relationship with alcohol (Klimkiewicz et al., 2015). Alcohol abuse research reveals that high rates of alcohol consumption are significantly associated with chronic disease (Reid, 2015), a concern from which Jamaican society is likely not exempt, given

the prevalence of heavy episodic drinking on the island. In Jamaica, the socioeconomic implications of alcohol misuse, while anecdotal, are well established. Though the existing literature on the region is limited, generally, alcohol use data from Caribbean islands like Jamaica must be interpreted with caution because reports on the prevalence of alcohol use are often incomplete and typically underestimate the actual burden of alcohol misuse (Reid, 2015).

### Mental Health as a Predictor of Alcohol Misuse

Research reveals many negative consequences of alcohol use and dependency, including impaired self-control, alcohol-induced mental disorders such as depression, and the psychoactive effects of intoxication in the hours after consuming the substance (Babor et al., 2010). Globally, comorbidity between alcohol use disorder and major depressive disorder is one of the most ubiquitous and incapacitating psychiatric combinations (Babor et al., 2010). This mental duo is linked to a higher risk of low global functioning, alcohol dependence, life dissatisfaction, suicide attempt, and a significant relationship with other substances (Briere et al., 2014; Ordóñez et al., 2016).

In addition to the link between alcohol use disorder and depression, numerous studies show that people use alcohol to cope with traumatic experiences or other psychological distress (Brady et al., 2007; Ordóñez et al., 2016; Worthington et al., 1996). A four-year community study in Munich conducted among 3,021 young adults ages 14 to 24 and 2,548 participants at follow up suggest that young adults' anxiety disorders are strong predictors of current alcohol use disorder (Zimmermann et al., 2003). Likewise, their analysis of prospective data revealed that anxiety disorders are significant predictors of the subsequent onset and persistence of regular and hazardous alcohol use. Anxiety disorders such as panic and social phobia can therefore be

regarded as possible factors contributing to the development of problematic alcohol use among young adults.

Moreover, alcohol misuse can further exacerbate the severity of mental health symptoms and the treatment of co-occurring mental illness (Brady et al., 2007). A study by Worthington et al. (1996) further highlights that even moderate levels of alcohol use can hinder the treatment of depression by reducing the patient's response to antidepressants and contributing to an increased risk of side effects. These two studies provide invaluable insight into the symbiosis between mood disorders and alcohol use by highlighting the bidirectional relationship between anxiety/depression and alcohol misuse. Both can contribute to the development and or exacerbation of the other. Likewise, family structure has also been associated with alcohol use in previous research.

### Family Structure as a Predictor of Alcohol Misuse

Researchers and mental health professionals acknowledge the intricate link between alcohol misuse and a complex matrix of biological, psychological, and social factors. They understand the vastness of the immediate effects of alcohol misuse, which include conflict in relationships, disruption of daily functioning, and risky decisions that place the consumer and others in danger (Gassman, 2003). Conversely, little research exists on family structure as a predictor of alcohol misuse in Jamaica.

Barrett and Turner (2006) conducted a study on family structure and substance use problems in adolescents and young adults in a South Florida community. They found evidence that differences exist between single and dual parent family structures in their association with young adults' substance use. Youths from dual parent families reported considerably more involvement in organized activities and clubs than single-parent youths (Barrett & Turner, 2006),

which may act as a protective factor. Conversely, single-parents youths report less adult supervision, greater self-and-peer delinquency, and more positive pro-drug friends-and-peer norm perceptions (Barrett & Turner, 2006). These findings suggest an indirect relationship between family structure and alcohol use in adolescence in this US context.

Similarly, Oshi et al. (2015) conducted a study assessing trends in substance use among Jamaican adolescents. They posited that single-parent, married, and common-law family structures were the strongest predictors of lifetime use of alcohol in the Jamaican context. Their finding revealed that though the three family structures were positively and significantly associated with lifetime use of alcohol, family structure, including single-parent families, was not significantly associated with alcohol use in the past month. Many speculate that children in single-parent families are more prone to delinquent behaviors and alcohol misuse.

One study by the United Nations (2011) suggests that the absence of father figures from single-parent families is associated with emotional disconnection and weak social connectivity. Results from several multivariate analyses support the soundness of the theory that youths from single-parent families are at higher risk for substance use compared with their peers from dual parent households (Barrett & Turner, 2006; Eitle, 2006). More specifically, youth from single-parent households engage in higher levels of marijuana, cigarette, and alcohol use than youths in both-parent households (Barrett & Turner, 2006; Eitle, 2006). However, findings are mixed with other research, suggesting that while adolescents from mother only households report engaging in significantly more marijuana and cigarette use, their reports of alcohol use did not differ from those of youth from dual parent families (Hemovich & Crano, 2009). While some studies have found evidence supporting direct and indirect relationships between family structure and alcohol use, other researchers failed to find any differences. In addition to family structure, researchers

explored whether the quality of parenting relationships is associated with alcohol use among teens and young adults.

#### Perceived Parental Warmth and Control as Predictors of Alcohol Misuse

Characteristics of parental style such as "overprotection" and "low care" are consistently shown to predispose an individual to the onset of most psychiatric illnesses (Parker et al., 1979). One would be remiss to consider parental structure as a predictor of alcohol use among young adults and not consider parental warmth and control. Parental warmth concerns the extent to which the individual perceives their parents as affectionate and accepting; providing comfort and support; caring; and involved, loving, and responsive to their needs (Lowe & Dotterer, 2013) during childhood. Conversely, parental control is characterized as the parent's level of dominance over the child's behavior, from being controlling (high control) to setting few demands and rules (low control; Baumrind, 1971). Both parental warmth and control have been found, across a plethora of studies, to be associated with a variety of outcomes in adolescents and young adults (Barnow et al., 2002; Handren et al., 2016; Lowe & Dotterer, 2013; Naz, 2013: Rohner, 1986). Several studies reveal strong associations between rejection from parents and adolescents' emotional, internalizing behavioral problems, maladjustment, and depression (Fotti et al., 2006). Such studies highlight that the absence of warm and supportive parental figures is linked to behavioral, psychological, and developmental problems in children, adolescents, and adults (Naz, 2013). Furthermore, research supports a correlation between several mental health problems, including personality maladjustment and depression in adolescents, and the absence of perceived parental warmth (Rohner, 1986).

Few studies explore perceived parental warmth as a protective factor against alcohol misuse among adolescents and young adults, and the research on perceived parental warmth is

mixed. Barnow et al. (2002) conducted one cross-sectional and retrospective study among German adolescents that did not reveal any direct paths to alcohol problems from parental rejection or emotional warmth. No known research investigated this factor as a predictor among Jamaican young adults whose parents typically value a punitive, restrictive approach to discipline and child rearing (Epstein et al., 2002).

Similarly, numerous studies found that parental rejection, a lack of emotional support or warmth, and inadequate parental monitoring are likely risk factors for behavioral problems and heighten the risk for substance use difficulties in adolescents in the United States (Cohen et al., 1994; Emmelkamp & Heeres, 1988; Foxcroft & Lowe, 1991; Kandel & Davies, 1996; Needle et al., 1986; Velleman et al., 1993). Conversely, Mogro-Wilson's (2013) study, which examined parental factors associated with Mexican-American adolescents' alcohol use, reveals that parenting perceived as warm and loving among this group correlates with decreased alcohol use.

Furthermore, Donaldson et al. (2016) examined international literature on the enduring impact of parents' monitoring, warmth, expectancies, and alcohol use on their children's future binge drinking and arrests. The study revealed that low parental monitoring, parent alcohol misuse, low warmth, parent expectancies, and underage drinking were highly associated with incidences of binge drinking in adolescence and early adulthood. The same study also revealed that individuals who engaged in binge drinking as adolescents and young adults were more likely to be arrested as adults (Donaldson et al., 2016).

Moreover, Barnow et al. (2002) posited that the child's rejection by parents and perceived social and peer support influence self-esteem, which may directly or indirectly influence substance use. One may also consider the influence of parenting on the development of alcohol misuse among young adults from the perspective of the level of control parents exhibit

over their children. Numerous studies examine the influence of parental control on the development of alcohol misuse among youths. Borawski et al. (2003) conducted one such study that investigated the association between adolescents' drinking behavior and parental control among urban high school students in the United States. The findings revealed that parental monitoring prevents adolescents from engaging in heavy alcohol consumption early, even after considering critical demographic and other familial factors (Borawski et al., 2003). The consensus among studies exploring the effects of authoritative parents who exhibit highly demanding parenting styles is that adolescents have a significantly lower risk of alcohol use when compared with adolescents whose parents are moderately unresponsive and demanding (Jackson et al., 1999).

Chakroun-Baggioni et al. (2021) examined parenting style as a protective or risk factor for alcohol misuse in young adults in France. They found that parental support serves as a protective factor against alcohol consumption. Their study revealed that the higher the perceived level of support, the lower the heavy and binge drinking level for both men and women (Chakroun-Baggioni et al., 2021). However, there is scant research on these variables among young adults in Jamaica, and it is unclear if gender may play a role.

#### **Gender Roles In Jamaica**

Gender socialization within Jamaica's alcohol-consuming culture has been uniquely influenced by the history of colonialism and plantation capitalism. As Barrow (1998) argues, during colonization, plantation capitalism separated women's productive and reproductive tasks from men; however, this reality did not relegate women to the domestic domain or make them dependent on male wage earners as in other societies. Furthermore, anthropological emphasis on Caribbean families and the woman's roles within the family and its adoption of dichotomies,

which correlated women with domesticity and men with public affairs, distorted the reality of many Caribbean woman's lives (Barrow, 1998). Specifically, Jamaican women play a dual role in Jamaican society as both heads of household and breadwinners (Nettleford, 2009). Conversely, the cultural shift towards equality between genders in all aspects of life in Jamaican society extends to include the accessibility and acceptability of alcohol use among women, as alcohol use among Jamaican women is no longer a "hushed" subject. As a result, while other nations including the United States tend to report higher rates of problematic alcohol consumption among young adult men (Epstein et al., 2002), gender norms in Jamaica may be less likely to perpetuate such a divide. Further research on gender differences associated with drinking in Jamaica is needed.

# **Summary of Main Points and Significance**

Though the research on alcohol misuse among Jamaican young adults remains lacking, the studies reviewed provide invaluable insight into predictors of alcohol misuse among young adults globally. While existing studies examined mental health, family structure, and perceived parental warmth and control as predictors of alcohol misuse, few identified salient predictors that contribute to the high levels of alcohol use among Jamaican young adults. Also, given the observed prevalence of heavy episodic drinking among young adults in Jamaica, no known studies examined the relationship between anxiety and depression and alcohol use among this group specifically. Similarly, little research exists on family structure as a predictor of alcohol misuse in Jamaica or possible gender differences in these relationships.

Furthermore, the few studies relating to alcohol misuse and family structure are mixed, with many speculating that young adults raised in single-parent families are more prone to alcohol misuse (Oshi et al., 2018). Also, however, perceived parental warmth and control have

been examined as predictors of alcohol misuse (Oshi et al., 2018). Nevertheless, few studies have explored perceived parental warmth as a protective factor among young adults, and no known published study investigated parental warmth as a predictor of alcohol misuse among young adults in Jamaica specifically. Such limitations make it difficult to ascertain what factors are associated with alcohol misuse in Jamaica today.

# **The Current Study**

This quantitative study sought to examine whether a correlation exists between alcohol misuse and anxiety and depression, parental warmth and control, family structure, and gender among young adults 18 to 30 who reside in Jamaica, British West Indies. This study was conducted using self-report, standardized measures to assess alcohol misuse among Jamaican young adults.

The examiner was keen to identify likely correlates of alcohol misuse in Jamaica. The Alcohol Use Disorders Identification Test (AUDIT), a 10-item screening tool developed by the World Health Organization, was used to differentiate between moderate and harmful levels of alcohol use over the past year. For this study, the term *alcohol misuse* will be used to describe problematic alcohol use represented by a score of eight or more on the AUDIT. By bringing awareness to families, health care providers, and policy makers, it is hoped that the findings will highlight the urgent need to tackle the observed alcohol misuse epidemic and encourage efforts to discourage alcohol misuse without placing an undue burden on families. With data relevant to this population, the impetus is to champion efforts to reduce the prevalence of alcohol misuse on a community level through education. Focusing on the predictors of alcohol misuse in this population will provide invaluable information and help fill a gap in the literature.

For this study, the term family structure will be used to describe family systems that comprise dual parents, single parents (particularly mother only), and guardianship (other family members, i.e., grandparents, aunts, uncles, etc.).

## Research Questions and Hypotheses

This study examined the correlation between alcohol misuse and anxiety and depression, parental warmth/control, family structure, and gender in young adults 18 to 30 residing in Jamaica, British West Indies. The following questions directed this study: (a) Is there a correlation between depression and anxiety symptoms and alcohol misuse among young adults 18 to 30 residing in Jamaica? (b) Is differing family structure (single parent vs. two parents/guardian) associated with differences in alcohol misuse? (c) What is the correlation between perceived parental warmth and control and alcohol misuse among young Jamaicans ages 18 to 30? and (d) Are there gender differences in any of the above relationships?

The investigator predicted that alcohol misuse would correlate with higher anxiety and depressive symptom levels. Prior literature has found that youth from single-parent families experience higher levels of alcohol consumption than young adults from dual parent or guardianship family structures. The investigator further hypothesized that positive perceptions of (high) parental warmth and (low) overprotection would buffer against alcohol misuse. In contrast, negative perceptions of parental warmth and control are expected to correlate to higher levels of alcohol misuse. Finally, a lack of prior research on gender differences among the variables named above in this population makes prediction difficult; thus, these analyses will be exploratory.

#### **CHAPTER III: METHOD**

This study used a quantitative self-report survey to examine possible correlations between alcohol misuse and anxiety and depression amongst 136 young adults aged 18 to 30 residing in Jamaica. Also, the investigator explored whether the family structure and perceived parental warmth and overcontrol are predictors of alcohol consumption among this group. Finally, we investigated possible gender differences in the associations between mental health, family structure, parenting, and alcohol misuse.

# **Participants**

Recruitment of participants for this study was initiated on social media (Facebook, Instagram) via snowball sampling on WhatsApp, Emails, and word-of-mouth. Efforts were made to recruit diverse participants with respect to socioeconomic status. Although information about individual participants' race was not gathered, Jamaica is a mixed-race society, with the majority being of African descent. One hundred and forty-seven participants representing 14 parishes participated in the study. Of this group, 11 participants were omitted from the study; of these 11, eight did not meet the age criteria and three, although currently domiciled in Jamaica, were born and raised in a foreign country. Of the remaining 136 participants, 76.5% identified as female, 22.8% as male, and .7% preferred not to disclose their gender identity. Participants in this study ranged from ages 18 to 29. The mean age of participants was 21.12 years old (SD = 2.38).

The sexual orientation of the participants was reported as 65.4% heterosexual, 8.8% bisexual, and 9.5% identified as another (Asexual/Ace Spectrum; Lesbian, Pansexual, Questioning, "Heteroleaning"). Of the participants, 16.2% preferred not to state their sexual orientation.

Participants reported on their family structure between ages 0 to 18. Of the sample, 47.8% (n = 65) reported growing up with both parents (group 1), 39.0% (n = 52) reported growing up in a mother only single-parent household (group 2), and 13.2% (n = 18) reported growing up with other family members (i.e., father only, grandparents, other family members; group 3). Participants' highest levels of education ranged from primary school to college graduates. Of the sample, 1.5% of participants reported having primary school as their highest level of education (approximate equivalence to eighth grade education in the U.S.), 2.3% were all-age school graduates (approximate equivalence to tenth grade education in the U.S.), 48.9% reported having a high school education, 18% reported having vocational training, and 29.3% reported having a college education. When reporting on education, 2.2% of the sample did not indicate their highest level of education.

Jamaica is divided into 14 regions known as parishes. Representation was achieved from all 14 parishes. The parishes are categorized into three counties: Cornwall, Middlesex, and Surrey, respectively. Of the participants, 18.38% reported living in Cornwall, 54.41% reported living in Middlesex, and 27.21% reported living in Surrey.

#### Measures

## Perceived Parental Warmth and Control

To measure perceived parental warmth and control, the investigator administered the Parental Bonding Instrument (Parker et al., 1979). Parental bonding is defined by the two domains of control or protection and warmth perceived by the individual (Parker et al., 1979) and held to underpin interpersonal relationships (Hinde, 1977). Most questionnaire items refer to parental *behavior* and *attitudes* toward the individual. The PBI asked youths to respond retrospectively about their parents or other primary caregivers' various attitudes and behaviors

they experienced during childhood. Perceived parental warmth regarding closeness (i.e., makes me feel I am wanted) was collected (Parker et al., 1979). The 25-item self-report instrument was created by Parker et al. (1979) to measure individuals' perceptions of how they were raised during their first 16 years of life. We asked participants to recall the attitudes and behaviors of their primary caregivers (i.e., mother, father, grandparents, and other family members) together rather than separately. Twelve of the 25 items address parental warmth (care), and 13 address parental control (overprotection). Over 33 years, the PBI has consistently assessed parental styles in clinical and nonclinical settings (Ceitlin et al., 2009).

The measure elicits a memory-based response of caregiver warmth (i.e., the perceived warmth dimension of parenting). Some such items were my parent often "Spoke to me in a warm and friendly voice," "Appeared to understand my problems and worries," "was affectionate to me," "Enjoyed talking things over with me," "frequently smiled at me," and "could make me feel better when I was upset." Six items were (reverse-scored) used to measure the absence of perceived parental warmth: My parent often "did not help me as much as I needed," "seemed emotionally cold to me," "did not seem to understand what I needed or wanted," "made me feel I was wanted," "did not talk with me very much," "did not praise me." This was coded as perceived warmth (never = 0, sometimes = 1, often = 2, and always = 3). The PBI assesses the young adults' *perceptions* of the warmth, nurturance, affection, support, or care (i.e., parental warmth) they received in their family of origin. The PBI showed good reliability within the current sample. The Cronbach's alpha for the PBI in the current data set was  $\alpha = .65$ .

The PBI also elicits a memory-based response to the level of control (i.e., overprotection). Thirteen items were used to measure control, which is represented by perceived overprotection: My parent often: "did not want me to grow up," "tried to control everything I

did," "invaded my privacy," "tended to baby me," "tried to make me feel dependent on him/her," "felt I couldn't look after myself unless she/he was around," "was overprotective of me." Of the 13 items, six items were (reverse-scored) used to measure the absence of overprotection; My parent often: "allowed me to do things I liked doing," "allowed me to make my own decision," "allowed me to decide things for myself," "gave me as much freedom as I wanted," "allowed me to go out as often as I wanted," "allowed me to dress in any way I pleased."

Perceived parental control was coded as overprotection. The PBI assesses the young adults' *perceptions* of control as the level of dominance the parent exerts over the participant during their childhood marked by asserting control and strict rules (i.e., parental control) they received in their family of origin. The PBI showed good reliability within the current sample. The Cronbach's alpha for the PBI in the current data set was  $\alpha = .80$ .

### Self-Report of Depression

The Center for Epidemiological Studies Depression Scale (CES-D) was used to measure depression symptoms. The CES-D is a 20-item self-report inventory scored on a 4-point scale. The scale was designed to be used by the general population (Radloff, 1977). The CES-D has high internal consistency and has been used across a wide age range (Lewinsohn et al., 1997). The CES-D has high inter-rater reliability (r = .76, p < .001) and demonstrates a high correlation with other depression measures (Shinar et al., 1986). The CESD showed good reliability within the current sample. The Cronbach's alpha for the CESD in the current data set was  $\alpha = .91$ . The average depression score within the sample was M = 26.09, SD = 13.17. A score of 15–21 represents mild to moderate depression, and a score over 21 represents the possibility of major depression.

# Self-Report of Anxiety

The Generalized Anxiety Disorder Assessment scale (GAD-7) is a screening and symptom severity tool for anxiety (Spitzer et al., 2006). The GAD-7 has been demonstrated to have good test-retest reliability (intraclass correlation = .83). The GAD-7 has been shown to correlate well with both the Beck Anxiety Inventory (r = .72) and the anxiety subscale of the symptom checklist-90 (r = .74), displaying good validity (Spitzer et al., 2006). Across cultural groups of White/Caucasian, Hispanic, and Black/African American undergraduates, the GAD-7 displayed a good fit across the subsamples (Parkerson et al., 2015). The GAD-7 showed good reliability within the current sample. One participant was excluded for failing to complete the measure. The Cronbach's alpha for the GAD-7 in the current data set was  $\alpha$  = .89. The average anxiety score within the sample was M = 9.82, SD = 6.22. Anxiety symptom score measured on the GAD-7 is represented on a range from zero to 21. A score of 0–4 represents minimal anxiety and a score of 5–9 represents mild anxiety, whereas scores ranging from 10–14 represent moderate anxiety symptoms, and at the higher end of the range, a score of 15–21 represents severe anxiety, indicating the possibility of a generalized anxiety disorder.

#### Self-Report of Alcohol Use

The Alcohol Use Disorders Identification Test (AUDIT) measured alcohol use. The AUDIT is a 10-item self-report inventory that is scored on a 5-point scale. The World Health Organization designed the scale to identify harmful and hazardous alcohol use to individuals' health (Babor et al., 2010). The AUDIT investigates three key domains of alcohol use, including (1) alcohol intake, (2) potential dependence on alcohol, and (3) experience of alcohol-related harm (Babor et al., 2010). Several of the AUDIT's questions reflect the essential relationship between people and alcohol, including its ability to cause dependence (addiction) and a range of

harmful consequences. Though the AUDIT was originally designed for use in primary care settings, several recent studies validated the instrument in other health care and community contexts (Lima et al., 2005). The AUDIT has high internal consistency and has been used across a wide age range (Lima et al., 2005). The AUDIT has excellent interrater reliability for harmful use (k = .88) and dependence (k = .97) in the previous 12 months (Lima et al., 2005). One participant did not complete the measure and was therefore excluded from the analysis. The AUDIT showed good reliability within the current sample with a Cronbach's alpha of  $\alpha = .86$ . The average AUDIT score within the sample was M = 6.50, SD = 7.24. A score of eight or more represents harmful or hazardous alcohol use, whereas a score of 13 or more in women and 15 or more in men is a likely indication of alcohol dependence. For the purpose of the study, the term alcohol misuse is used to describe problematic alcohol use represented by a score of eight or more on the AUDIT.

#### **Procedure**

The survey was posted online on various social media platforms (Instagram and Facebook), recruiting Jamaican-born participants 18 through 30 residing in Jamaica. In addition to social media platforms, the survey link was also shared via WhatsApp and e-mail. Recipients of the survey link were encouraged to share the survey widely (snowball sampling). The study participants agreed to the Informed Consent and then proceeded to complete the survey online.

The survey contained questions intended to gather specific demographic data about each participant. The instrument included questions about the participants' highest level of education, birth parish, parish of current residence, parents' level of education, age of first contact with alcohol, family structure before age 18, birth sex, gender identity, and sexual identity/orientation.

The participants were asked, "In regard to your family structure, who lived with you while you were growing up? (birth to age 18)" to assess their family structure before age 18.

Participants were asked to disclose their age when they consumed their first alcoholic beverage, "How old were you when you had your first drink?" Notably, the average age of first drink within the sample was M = 14.42, SD = 3.714. Participants who endorsed alcohol use were asked to disclose why they drink, "Why do you drink alcohol?" When assessing for education level, participants were asked to indicate their highest level of education by choosing from the following list: primary school graduate, all-age school graduate, high school graduate, college graduate, vocational training, or none of the above.

### **Analysis**

Data were collected anonymously using a Google Docs survey. The data were extracted as a Comma Separated Values file, further compiled into Microsoft Excel for organization, and then imported into statistical software (SPSS) for analysis. Descriptive statistics were conducted, followed by exploratory inferential analysis, including correlation and *t* tests, to explore the questions presented in this study. A 95% confidence interval was applied to the analysis, with an alpha of .05.

### **CHAPTER IV: RESULTS**

# **Alcohol Misuse and Depression/Anxiety**

The first research question sought to examine whether a correlation exists between alcohol misuse and anxiety and depression in Jamaican young adults. The analysis revealed that alcohol misuse as indicated by higher AUDIT scores is positively correlated with both anxiety  $(r = .25, n = 134, p < .01, R^2 = 6.3\%)$  and depression  $(r = .26, n = 128, p < .01, R^2 = 7\%)$ ; see Table 3). Overall, the results supported the proposed hypotheses that alcohol misuse correlates with higher levels of both anxiety and depressive symptoms.

# **Family Structure and Levels of Alcohol Misuse**

The second research question explored the possible connection between family structure (e.g., dual parents, mother only, other family members) and alcohol misuse. The results failed to support a relationship between family structure and alcohol misuse in the current sample; however, the small number of participants from guardianship family structure makes it difficult for meaningful comparison between the three family structure groups.

### Parental Warmth and Control and Levels of Alcohol Misuse

The third research question sought to explore whether a correlation exists between parental warmth/control and levels of alcohol misuse. The findings revealed a negative correlation between parental warmth and alcohol misuse (r = -.23, n = 133, p = .007), indicating that youth who perceived greater parental warmth were less likely to engage in problematic alcohol use. There was no significant correlation between parental overprotection and alcohol misuse (r = .07, n = 128, p = .467). The results support the hypotheses that positive perceptions of (high) parental warmth but not control are associated with lower levels of alcohol use.

#### **Gender Differences**

The final question sought to determine whether gender differences existed in any of the above relationships. Results suggested that male participants endorsed higher levels of alcohol use (M = 8.71, SD = 8.19) than females overall (M = 5.79, SD = 6.84, t(132) = 1.99, p = .049; see Table 2). With respect to gender differences in parental warmth and overprotection, a significant gender difference was found in parental overprotection, with women reporting they experienced higher levels of over protection from caregivers during childhood (M = 22.62, SD = 6.57) than men, M = 18.83, SD = 7.50, t(126) = -2.67, p = .009. There was no significant gender difference in warmth experienced from caregivers during childhood.

Women also reported significantly higher levels of anxiety (M = 10.64, SD = 6.05) than men (M = 6.97, SD = 6.07) in the sample, t(132) = -2.96, p = .004. There was a marginally significant gender difference in depression, t(126) = -1.94, p = .055, with women (M = 27.13, SD = 14.20) reporting higher depression scores than men (M = 21.75, SD = 12.64).

In summary, the overall results revealed that levels of alcohol misuse is correlated with higher levels of anxiety and depression, with women reporting significantly higher anxiety levels than men. There was also a marginally significant gender difference in depression, with women reporting higher depression scores than men. A negative correlation exists between parental warmth and levels of alcohol misuse, which indicates young adults who perceived greater parental warmth were less likely to engage in problematic alcohol use. No significant correlation was evident between parental overprotection and alcohol misuse. There was a trend for young adults from single-parent (mother only) households to have higher alcohol consumption than young adults from dual parent family structures though this finding should, however, be interpreted with caution due to low sample size in the group of dual parent families.

#### **CHAPTER V: DISCUSSION**

As the prevalence of heavy episodic drinking among Jamaican young adults increases (Reid, 2015), it is essential to highlight the sequelae of excessive alcohol use as a condition contributing to mental health burdens on the individual, their family, and society. Using a quantitative design, the current study conducted among Jamaican young adults explored the association between alcohol misuse and anxiety and depression, family structure, parental warmth and control, and the role of gender. The study revealed a connection between alcohol misuse and mental health difficulties. Gender differences were seen across the sample, with women reporting higher anxiety levels than their male counterparts. Conversely, young adults of both gender who perceived greater parental warmth were less likely to engage in problematic alcohol use. Last, the results provide a deeper understanding of the contextual factors influencing alcohol misuse. Further, findings highlight the need for gender-based intervention in addressing factors related to alcohol misuse and mental health difficulties among young adults and possibly in the general population.

### **Differences Across Gender**

The study examined possible gender differences associated with mental health, family structure, parenting, and alcohol misuse. As expected, there exists a link between alcohol misuse and higher levels of anxiety and depression. A comparison of mental health difficulties experienced by women and men in this sample revealed a significant gender difference in alcohol misuse and anxiety and, to some degree, depression, with men reporting higher alcohol misuse than women. Conversely, women reported higher anxiety and marginally higher depression than men. The supposition is that alcohol misuse and mental health difficulties have a bidirectional relationship. Alcohol can be used to self-medicate unmitigated anxiety and

depression, which results in alcohol depressing the central nervous system, leading to physical disintegration, negative behavior, and emotional pain resulting from alcohol addiction (Brady, 2014).

As expected, male participants endorsed higher levels of alcohol misuse than females overall. When the results in the current study were disaggregated, an interesting picture emerged. Alcohol prevalence among males was higher than among females, supporting the proposed hypotheses, with 41.9% of men compared with 25.5% of women reporting potential harmful or hazardous alcohol use on the AUDIT (scores of eight or above). Previous research indicates that, in general, men consume more alcohol than women. The Inter-American Drug Abuse Control Commission (2010) reported the prevalence of alcohol use by gender, in which 69.76% of men endorsed lifetime use compared with 62.47% of women. Their data support the results from the current study, which indicated that Jamaican men had higher AUDIT scores than women. Therefore, one can infer that these findings may be representative of the general population in Jamaica.

Over the past decade, an increase in alcohol misuse among young adults in Jamaica has been observed. The current study also indicated that this group of Jamaican young adults displayed elevated anxiety and depression scores. A parallel study conducted in Jamaica by the Northern Caribbean University in 2021 revealed that 50% of Jamaican young adults ages 18 to 35 reported increased alcohol consumption since the COVID-19 pandemic (Bourne, 2021). Furthermore, the same study highlighted that 42% of participants indicated their weekly alcohol use has quadrupled since the pandemic (Bourne, 2021). The pandemic likely intensified alcohol use among young adults as they experienced uncertainty for their future, job loss, and financial distress (American Psychological Association, 2020). Notwithstanding, heavy episodic drinking

was previously established as a problematic behavior among Jamaican young adults. Anecdotal reports indicate that alcohol misuse is a significant public health problem in Jamaica. The National Council on Drug Abuse confirmed this phenomenon in 2019. Their findings established that 40% of the Jamaican population ages 12 to 65 reported actively using alcohol, and 75% reported using alcohol at some point (CICAD, 2019).

A significant relationship between alcohol misuse and mental health difficulties was observed in this sample. The study revealed that 41.9% of males and 25.5 % of females received harmful to hazardous alcohol scores of eight or higher on the AUDIT, placing them in the range of at-risk for an alcohol use disorder diagnosis (Babor et al., 2010). In addition, 35% of males and 53.4% of females in the sample received anxiety scores of 10 or higher on the GAD-7, placing them in the moderate to the severe range for elevated anxiety levels (Johnson et al., 2019). The depression index revealed that 21.4% of males and 48% of females received depression scores of 15 to 21 on the CES-D, categorizing them as having mild to moderate depression. Further, 42.9% of males and 33% of females received scores of 21 or higher, placing them in the at risk range for clinical depression (Lewinsohn et al., 1997). The relatively high anxiety and depression scores among respondents in the current study were striking. They may reflect the shift toward more pronounced mental health challenges in the general population. Notably, a higher percentage of males than females scored symptoms in the clinically significant range for depression. This phenomenon thus warrants further exploration when considering the stigma around mental health challenges in Jamaica, where cultural norms may discourage people from openly reporting their emotional distress.

# **Alcohol Misuse and Family Structure**

Prior research demonstrated that young adults from single-parent families might experience higher levels of alcohol consumption than those from dual parent or guardianship family structures (Barrett & Turner, 2006). This study expected that youth from single-parent families would report higher levels of alcohol consumption than young adults from dual parent or guardianship family structures. However, the current study failed to find a relationship between family structure and alcohol misuse. It is likely that the small group size limited the ability for meaningful comparison. In addition, the "other-family" members family structure subgroup comprised smaller subsets of single parents (father only, grandparents, guardianship) that were combined into one group, which may have diluted the results. The single-parent mother only family structure was isolated to distinguish this group from other single-parent family structures. This distinction was made to account for the fact that in the Caribbean, female-headed single-parent households constitute approximately 45% of families (Oshi et al., 2018) in the general population. Thus, the family structure remains an unclear correlate of alcohol misuse among Jamaican adolescents (Oshi et al., 2018) and gives no credence to the idea that adolescents from the single-parent family structure are at greater risk for using alcohol than their peers from dual parent family structures. In addition to family structure, parenting characteristics such as warmth and overprotection were also of interest in the current study.

# Alcohol Misuse and Perceived Parental Warmth and Overprotection

Previous studies conducted in the United States have identified the absence of emotional support or warmth as a likely risk factor for increased rates of substance use difficulties in adolescents (Cohen et al., 1994; Emmelkamp & Heeres, 1988; Foxcroft & Lowe, 1991; Kandel & Davies, 1996; Needle et al., 1986; Velleman et al., 1993). The current study found that as

parental warmth increased, alcohol use decreased. The negative correlation between parental warmth and alcohol use was consistent with the hypothesis that positive perceptions of (high) parental warmth are associated with less alcohol use. As such, the results of the current study lend support to the notion that parental warmth is an important correlate of alcohol misuse.

Based on prior research, it was expected that perceptions of (low) overprotection would correlate with reduced levels of alcohol use (Borawski et al., 2003). Numerous prior studies have found that inadequate parental monitoring is a likely risk factor for substance use difficulties in adolescents in the United States (Cohen et al., 1994; Emmelkamp & Heeres, 1988; Foxcroft & Lowe, 1991; Kandel & Davies, 1996; Needle et al., 1986; Velleman et al., 1993). Contrary to previous findings, however, there was no significant correlation between parental overprotection and alcohol misuse in the current study. The finding suggests that alcohol misuse among Jamaican young adults is not dependent on the level of control exhibited by the caregiver but rather the quality of those relationships as reflected in parental warmth.

A focus on overall gender differences in parental overprotection revealed a significant gender difference. Women endorsed experiencing more overprotection than men from their caregivers during their formative years, which was not surprising in a traditional patriarchal society in which women are regarded as the weaker sex. Surprisingly, the study yielded no difference in parental warmth between genders.

Overall, the results highlight the protective effects of parental warmth on alcohol consumption. The investigator found that the higher the perceived level of warmth, the lower the level of heavy and binge drinking for both women and men. Jamaican culture expects mothers to behave affectionately, warmly, and empathically towards their children, whereas fathers are expected to set rules depicting authority and, therefore, control. Contrary to previous findings,

however, the investigator did not find any effects of perceived parental control on drinking patterns (Alati et al., 2010; Moore et al., 2010).

#### **Limitations and Future Directions**

The study was subject to limitations of the study design and pandemic-related factors.

Data collection was done using a quantitative online survey. Future research could employ mixed methods, integrating a short-term group experience in which participants would have the opportunity to complete a personal narrative to capture their understanding of alcohol use from a cultural perspective. Incorporating a qualitative element would possibly reveal the essence of the intimate relationship participants have with alcohol and create opportunities to explore further an entire system of thoughts and behavior related to alcohol use that the survey might have missed. Such data would provide a rich cultural context about Jamaican young adults' relationship with alcohol when considering that alcohol use is ingrained in the sociocultural fabric of Jamaican society.

Though it was beyond the scope of this particular study to dive deeper into the influence of colonialism on alcohol misuse in Jamaica, we must not ignore its long-standing implications for the current epidemic. Of note, the lack of access or availability of archival data on the effects of colonization further hindered the investigator's ability to shed light on the long-term effects of colonization that resulted in the established rum culture in Jamaican society. Though the study did not explore the effects of colonization and its influence on the sociopolitical factors that contribute to the current levels of alcohol use, we cannot ignore such factors. Concurrently, the current sociopolitical climate in Jamaica undoubtedly maintains the influence of alcohol use, and thus, there are many unknown factors because of the lack of documentation that continues to perpetuate the alcohol use epidemic.

The sample size for the data set was another limiting factor, especially for between-group comparisons. Female participants represent approximately three times the number of male participants who endorsed more harmful and hazardous alcohol use. This smaller data set limited the power of statistical analysis and, as a result, may have made it more difficult to find possible connections between variables in the data set. Further research can aid in addressing these limitations through increases in sample size and including more male participants.

Future directions for research in this area include exploring the bidirectional relationship between mental health and alcohol misuse among Jamaican young adults and the short-term and long-term implications of alcohol misuse on mental health conditions. This study found significant gender differences in anxiety and a trend for gender differences in depression.

Women reported higher anxiety than men, who reported higher alcohol use. Future studies are warranted to assess the intricate link between alcohol use further, and mental health professionals are necessary to obtain directions on how to stem the alcohol use epidemic. Current alcohol use data from Jamaica and the Caribbean, in general, must be interpreted with caution because reports on the prevalence of alcohol use are often incomplete (Reid, 2015) and typically provide an underestimation of the actual burden of alcohol misuse. In addition, further exploration with larger samples should be conducted to assess the prevalence of alcohol misuse among Jamaican young adults postpandemic.

# **Implications and Clinical Relevance**

The principal purpose of this study was threefold: (a) expand awareness of the relationship between mental health and alcohol use, (b) provide a better understanding of the relationship between family characteristics and alcohol use, and (c) explore gender differences in the correlates of alcohol use among young adults residing in Jamaica, British West Indies.

Ultimately, we hope the findings can be used to increase awareness and effectiveness of societal-level interventions and preventative measures to reduce problematic alcohol use in Jamaica.

The study found that a significant portion of respondents scored in the clinical range for alcohol use, anxiety, and depression. These findings signal the need for increased mental health education and substance use mitigation for policy makers to enact policies geared toward destignatizing mental health in the region. Efforts must be made to enforce laws that govern underage drinking and strengthen prevention initiatives to increase the age of first contact with alcohol.

As well, connections were made between perceived parental warmth and alcohol misuse. Mental health professionals can intervene directly to enhance parental warmth in preventative work with their patients (Riley et al., 2008). Moreover, societal-level interventions can increase parental warmth by removing barriers and stressors that lead to parents' inability to access a natural symbiotic warmth towards their children, which is necessary to create that beautiful buffer of parental warmth. In addition to treating alcohol misuse in parents, policy makers can undertake public education campaigns to increase awareness in a preventative effort to mitigate the short-term and long-term effects of alcohol misuse on children's development. Furthermore, the Ministry of Education can strengthen early childhood intervention efforts by increasing funding for severely under resourced organizations such as the National Parenting Support Commission and the Early Childhood Commission. Such action will aid in establishing a foundation that fosters strong cognitive functioning; physical health; and social, behavioral, and self-regulatory abilities in our children and, subsequently, young adults. The implications further

suggest the need for sustained public education on the harmful effects of alcohol misuse on the individual, their family, and society.

This study emphasizes the importance of understanding the implications of alcohol use on the individual's physical and mental health and society. Mental health professionals can use the ecological frame to better conceptualize how these multilayered experiences interact to determine mental health and conceptualize appropriate interventions to stem the harmful effects of alcohol. This frame highlights how psychological health is determined by the individual's interactions, relationships, and societal factors. Now more than ever, mental health professionals are equipped with knowledge of the effects of alcohol on the brain and how community structure facilitates alcohol dependency. Alcohol use exists within the context of a microsystem and is nested within a community structure. On the periphery of such systems lie macro-level factors that ultimately affect individual behaviors and attitudes toward drinking (Sudhinaraset et al., 2016). Therefore, psychological interventions must begin with an in-depth exploration and understanding of the community influences and cultural norms if the intervention is to effect change on a societal level.

Additionally, the study addresses a knowledge gap, thus deepening the understanding of the relationship between perceived parental warmth, mental health challenges, and an individual's relationship with alcohol use. This knowledge will provide mental health professionals with insight into the contextual factors contributing to increased alcohol misuse and the enormity of the challenge. It will further aid policy makers in developing a deeper understanding of the urgent need to tackle this epidemic by fostering environments that discourage alcohol use without placing an undue burden on families. Mental health professionals must be aware of the conduits between various factors contributing to mental illnesses and be

willing to target several multilayered factors framed through a psychological, biological, and sociocultural lens.

Furthermore, individuals can champion efforts to reduce the prevalence of alcohol misuse on a societal level. Through advocacy, they can facilitate the implementation of community-based interventions that provide education about the deleterious effects of alcohol on physical and mental health. Intervention may include a treatment approach that combines cognitive-behavioral therapy and motivational interviewing to address substance use challenges. Proponents should encourage and support consumer advocacy and align such efforts with community and regional coalitions to encourage sustained activism by civil society. In so doing, they can promote intolerance of harmful alcohol use through local sponsorship, thus diminishing the sociocultural value of alcohol while encouraging change in drinking habits (Reid, 2015).

Last, mental health intervention should include programs that educate the general public about the signs and symptoms of compromised mental health. Destignatizing mental health can be done at several levels, including introducing mental health education into the school curriculum. These interventions can foster open dialogue around mental health challenges similar to medical illnesses such as high blood pressure and diabetes. Individuals can then begin to view mental health challenges not as signs of moral failings but as treatable medical conditions.

Despite these many important implications, the study is not without limitations.

# Conclusion

The current study examined anxiety and depression, family structure, and perceived parental warmth and control as predictors of alcohol misuse among Jamaican young adults.

Gender differences in these relationships were also explored. The quantitative data provided a deeper understanding of the link between alcohol use and mental health challenges among

Jamaican young adults. The results of the study were consistent with findings in previous studies where a relationship was established between alcohol use and mental health. In addition, a higher percentage of females reported mental health challenges in the clinically significant range, and women reported experiencing higher levels of overprotection from caregivers during their formative years than men. These results expanded the complex relationship between alcohol use and mental health and further confirmed that the psychological effects of alcohol misuse vary among users. Notable differences were seen across genders, with women reporting higher rates of anxiety and men reporting higher levels of alcohol use. These results support the importance of gender-informed interventions in addressing alcohol use and mental health problems. The finding signals the need for mental health professionals and policy makers to deepen their understanding of the symbiosis between gender and mental health and alcohol use and the need for urgent interventions.

Overall, the study provided an increased understanding of the link between alcohol use and mental health and the contextual factors contributing to a mental health burden on the individual, their family, and the Jamaican society. As we deepen our knowledge about the predictors of alcohol misuse, may we take steps toward fostering an environment that discourages alcohol in a manner that does not place an undue burden on families. In so doing, we can create meaningful change in our society.

### References

- Alati, R., Maloney, E., Hutchinson, D. M., Najman, J. M., Mattick, R. P., Bor, W., & Williams, G. M. (2010). Do maternal parenting practices predict problematic patterns of adolescent alcohol consumption? *Addiction*, *105*(5), 872–880. https://doi.org/10.1111/j.1360-0443.2009.02891.x
- Alderman, C. L. (1974). Rum, slaves and molasses: The story of New England's triangular trade. Bailey & Swinfen.
- American Psychological Association. (2020). *Stress in America 202: A national mental health crisis.* https://www.apa.org/news/press/releases/stress/2020/sia-mental-health-crisis.pdf
- Atkinson, U., Abel, W. D., & Whitehorne-Smith, P. (2015). Current trends in adolescent substance use in Jamaica. *Wimj Open*, 2(1). https://doi.org/10.7727/wimjopen.2014.262
- Babor, T. (2010). *Alcohol: No ordinary commodity: Research and public policy* (2nd ed.). Oxford University Press.
- Balogun, O., Koyanagi, A., Stickley, A., Gilmour, S., & Shibuya, K. (2014). Alcohol consumption and psychological distress in adolescents: A multi-country study. *Journal of Adolescent Health*, *54*(2), 228–234. https://doi.org/10.1016/j.jadohealth.2013.07.034
- Barnow, S., Schuckit, M. A., Lucht, M., John, U., & Freyberger, H. J. (2002). The importance of a positive family history of alcoholism, parental rejection and emotional warmth, behavioral problems and peer substance use for alcohol problems in teenagers: A path analysis. *Journal of Studies on Alcohol*, 63(3), 305–315. https://doi.org/10.15288/jsa.2002.63.305
- Barrett, A. E., & Turner, R. J. (2006). Family structure and substance use problems in adolescence and early adulthood: Examining explanations for the relationship. *Addiction*, 101(1), 109–120. https://doi.org/10.1111/j.1360-0443.2005.01296.x
- Barrow, C. (1998). Edith Clarke: Jamaican social reformer and anthropologist. *Caribbean Quarterly*, 44(3–4), 15–34. https://doi.org/10.1080/00086495.1998.11829585
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology*, 4(1, Pt.2), 100–103. https://doi.org/10.1037/h0030372
- Borawski, E. A., Ievers-Landis, C. E., Lovegreen, L. D., & Trapl, E. S. (2003). Parental monitoring, negotiated unsupervised time, and parental trust: The role of perceived parenting practices in adolescent health risk behaviors. *Journal of Adolescent Health*, *33*(2), 60–70. https://doi.org/10.1016/S1054-139X(03)00100-9

- Brady, K. T. (2014). The effects of drug abuse on the human nervous system. In the effects of alcohol on the human nervous system. In B. Madras & M. Kuhar (Eds.), *The effects of drug abuse on the human nervous system* (pp. 299–312). https://doi.org/10.1016/B978-0-12-418679-8.00009-5
- Brady, K. T., Tolliver, B. K., Verduin, M. L., Brady, K. T., Tolliver, B. K., & Verduin, M. L. (2007). Alcohol use and anxiety: Diagnostic and management issues. *American Journal of Psychiatry*, *164*(2), 217–221. https://doi.org/10.1176/ajp.2007.164.2.217
- Bourne, P. A., Allen, D. A., Bennett, J., Walker, S., Williamson, B., McLean, C., Fallah, J., Campbell, C., Foster, C., & White, M. (2021). Impact of alcohol consumption on the psychological wellbeing of Jamaicans during the coronavirus disease-19 (COVID-19) pandemic. *International Journal of Collaborative Research on Internal Medicine & Public Health*, 13(9).
- Briere, F. N., Rohde, P., Seeley, J. R., Lewinsohn, P. M., & Klein, D. (2014). Comorbidity between major depression and alcohol use disorder from adolescence to adulthood. *Comprehensive Psychiatry*, *55*(3), 526–533. https://doi.org/10.1016/j.comppsych.2013.10.007
- Bronfenbrenner, U. (1975). Reality and research in the ecology of human development. *Proceedings of the American Philosophical Society*, 119(6), 439–469.
- Bronfenbrenner, U. (1995). Developmental ecology through space and time: A future perspective. In P. Moen, G. H. Elder, Jr., & K. Lüscher (Eds.), *Examining lives in context: Perspectives on the ecology of human development* (pp. 619–647). American Psychological Association. https://doi.org/10.1037/10176-018
- Buddan, R. (2004). Universal adult suffrage in Jamaica and the Caribbean since 1944 (2004). Sir Arthur Lewis Institute of Social and Economic Studies, University of the West Indies, 53(4), 135–162. https://doi.org/10.1176/ajp.2007.164.2.217
- Centers for Disease Control and Prevention. (2018). Alcohol and substance misuse. https://www.cdc.gov/workplacehealthpromotion/health-strategies/substance-misuse/index.html
- Ceitlin, L. H., Fillipon, A. P., Hauck, S., Hirakata, V., Sanchez, P., Schestatsky, & S., Terra, L. (2009). Confirmatory factor analysis of the parental bonding instrument in a Brazilian female population. *The Australian and New Zealand Journal of Psychiatry*, 43(4), 348–54. https://doi.org/10.1080/00048670902721053
- Chakroun-Baggioni, N., Izaute, M., & Fall, E. (2021). Gender, attachment, and parenting style: Protective or risk factors of alcohol misuse in young adults? *Personality and Individual Differences*, 180(2). https://doi.org/10.1016/j.paid.2021.110976

- Cohen, D. A., Richardson, J., & LaBree, L. (1994). Parenting behaviors and the onset of smoking and alcohol use: A longitudinal study. *Pediatrics*, *94*(3), 368–375. https://doi.org/10.1542/peds.94.3.368
- Davenport, W. (1961). The family system of Jamaica. *Social and Economic Studies*, 10(4), 420–454.
- Donaldson, C. D., Handren, L. M., Crano, & W. D. (2016). The enduring impact of parents' monitoring, warmth, expectancies, and alcohol use on their children's future binge drinking and arrests: A longitudinal analysis. *Prevention Science*, *17*(5), 606–614. https://doi.org/10.1007/s11121-016-0656-1
- Eitle, D. (2006). Parental gender, single-parent families, and delinquency: Exploring the moderating influence of race/ethnicity. *Social Science Research*, *35*(3), 727–748. https://doi.org/10.1016/j.ssresearch.2005.06.003
- Eriksson, M., Ghazinour, M., & Hammarström, A. (2018). Different uses of Bronfenbrenner's ecological theory in public mental health research: What is their value for guiding public mental health policy and practice? *Social Theory & Health*. 16, 414–433. https://doi.org/10.1057/s41285-018-0065-6
- Emmelkamp, P. M., & Heeres, H. (1988). Drug addiction and parental rearing style: A controlled study. *The International Journal of the Addictions*, 23(2), 207–216. https://doi.org/10.3109/10826088809085116
- Epstein, J. A., Williams, C., & Botvin, J. G. (2002). How universal are social influences to drink and problem behaviors for alcohol use? A test comparing urban African-American and Caribbean-American adolescents. *Addictive Behaviors*, 27(1), 75–86. https://doi.org/10.1016/S0306-4603(00)00165-9
- Fotti, S. A., Katz, L. Y., Afifi, T. O., & Cox, B. J. (2006). The associations between peer and parental relationships and suicidal behaviours in early adolescents. *Canadian Journal of Psychiatry. Revue Canadienne De Psychiatrie*, *51*(11), 698–703. https://doi.org/10.1177/070674370605101106
- Foxcroft, D. R., & Lowe, G. (1991). Adolescent drinking behaviour and family socialization factors: A meta-analysis. *Journal of Adolescence*, *14*(3), 255–273. https://doi.org/10.1016/0140-1971(91)90020-R
- Gassman, R. (2003). Medical specialization, profession, and mediating beliefs that predict stated likelihood of alcohol screening and brief intervention: Targeting educational interventions. *Substance Abuse*, 24(3), 141–156. https://doi.org/10.1080/08897070309511544

- Grant, B. F., & Dawson, D. A. (1997). Age at onset of alcohol use and its association with DSM-IV alcohol abuse and dependence: Results from the national longitudinal alcohol epidemiologic survey. *Journal of Substance Abuse*, *9*, 103–110. https://doi.org/10.1016/S0899-3289(97)90009-2
- Handren, L. M., Donaldson, C. D., & Crano, W. D. (2016). Adolescent alcohol use: Protective and predictive parent, peer, and self-related factors. *Prevention Science: The Official Journal of the Society for Prevention Research*, *17*(7), 862–871. https://doi.org/10.1007/s11121-016-0695-7
- Hemovich, V., & Crano, W. D. (2009). Family structure and adolescent drug use: An exploration of single-parent families. *Substance Use & Misuse*, *44*(14), 2099–2113. https://doi.org/10.3109/10826080902858375
- Hinde, R. A. (1977). Biological bases of human social behaviour. McGraw-Hill.
- Inter-American Drug Abuse Control Commission (CICAD). (2010). Comparative analysis of student drug use in Caribbean countries: Antigua and Barbuda, Barbados, Dominica, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines (6th ed., Vol. 6). Organization of American States, CICAD.
- Jackson, C., Henriksen, L., & Dickinson, D. (1999). Alcohol-specific socialization, parenting behaviors and alcohol use by children. *Journal of Studies on Alcohol*, 60(3), 362–367. https://doi.org/10.15288/jsa.1999.60.362
- Johnson, S. U., Ulvenes, P. G., Øktedalen, T., & Hoffart, A. (2019). Psychometric properties of the General Anxiety Disorder 7-Item (GAD-7) scale in a heterogeneous psychiatric sample. *Frontiers in Psychology*, *10*. https://doi.org/10.3389/fpsyg.2019.01713
- Kandel, D. B., & Davies, M. (1996). High school students who use crack and other drugs. *Archives of General Psychiatry*, *53*(1), 71–80. https://doi.org/10.1001/archpsyc.1996.01830010073010
- Klimkiewicz, A., Klimkiewicz, J., Jakubczyk, A., Kieres-Salomoński I., & Wojnar, M. (2015). Comorbidity of alcohol dependence with other psychiatric disorders, part I epidemiology of dual diagnosis. *Psychiatria Polska*, 49, 265–275. https://doi.org/10.12740/PP/25704
- Lewinsohn, P. M., Seeley, J. R., Roberts, R. E., & Allen, N. B. (1997). Center for Epidemiological Studies-Depression Scale (CES-D) as a screening instrument for depression among community-residing older adults. *Psychology and Aging*, *12*, 277–287. https://doi.org/10.1037/0882-7974.12.2.277

- Lima, C. T., Freire, A. C., Silva, A. P., Teixeira, R. M., Farrell, M., & Prince, M. (2005). Concurrent and construct validity of the AUDIT in an urban Brazilian sample. *Alcohol and Alcoholism*, 40(6), 584–589. https://doi.org/10.1093/alcalc/agh202
- Lowe, K., & Dotterer, A. M. (2013). Parental monitoring, parental warmth, and minority youths' academic outcomes: Exploring the integrative model of parenting. *Journal of Youth and Adolescence: A Multidisciplinary Research Publication*, 42(9), 1413–1425. https://doi.org/10.1007/s10964-013-9934-4
- Magnavita, J. J. (2012). Advancing clinical science using system theory as the framework for expanding family psychology with unified psychotherapy. *Couple and Family Psychology: Research and Practice*, *I*(1), 3–13. https://doi.org/10.1037/a0027492
- Mogro-Wilson, C. (2013). Parental factors associated with Mexican American adolescent alcohol use. *Journal of Addiction*, 2013(1), 1–9. https://doi.org/10.1155/2013/205189
- Moore, G. F., Rothwell, H., & Segrott, J. (2010). An exploratory study of the relationship between parental attitudes and behaviour and young people's consumption of alcohol. *Substance Abuse: Treatment, Prevention, and Policy*, *5*(1), 20–42. https://doi.org/10.1186/1747-597X-5-6
- Naz, F. (2013). Parental rejection, personality maladjustment and depressive symptoms in female adolescents in Pakistan. *Iosr Journal of Humanities and Social Science*, *14*(1), 56–65. https://doi.org/10.9790/0837-1415665
- Needle, R., McCubbin, H., Wilson, M., Reineck, R., Lazar, A., & Mederer, H. (1986). Interpersonal influences in adolescent drug use: The role of older siblings, parents, and peers. *The International Journal of the Addictions*, 21(7), 739–766. https://doi.org/10.3109/10826088609027390
- Nettleford, R. E. X. (2009). The Caribbean woman and the labour movement. *Caribbean Quarterly*, 55(4), 59–65. https://doi.org/10.1080/00086495.2009.11878844
- Ordóñez, A. E., Ranney, R., Schwartz, M. Mathews, C. A., & Satre, D. D. (2016). Hazardous drinking among young adults seeking outpatient mental health services. *Addiction Science & Clinical Practice 11*(1), 1–7. https://doi.org/10.1186/s13722-016-0060-y
- Oshi, S., Abel, W. D., Agu, C., Omeje, J., Whitehorne-Smith, P., Ukwaja, K. N., Ricketts-Roomes, T., Meka I. A., Weaver, S., Rae, T., & Oshi, D. C. (2018). Single parent family structure as a predictor of alcohol use among secondary school students: Evidence from Jamaica. *Asian Pacific Journal of Cancer Prevention*, 19(S1), 19–23. https://doi.org/10.22034/APJCP.2018.19.S1.19

- Parker, G., Tupling, H., & Brown, L. B. (1979). A parental bonding instrument. *British Journal of Medical Psychology*, 52(1), 1–10. https://doi.org/10.1111/j.2044-8341.1979.tb02487.x
- Parkerson, H. A., Thibodeau, M. A., Brandt, C. P., Zvolensky, M. J., & Asmundson, G. J. G. (2015). Cultural-based biases of the GAD-7. *Journal of Anxiety Disorders*, *31*, 38–42. https://doi.org/10.1016/j.janxdis.2015.01.005
- Pemberton, M. R., & Center for Substance Abuse Prevention (US). (2008). *Underage alcohol use: Findings from the 2002-2006 national surveys on drug use and health* (Ser. Analytic series, a-30). Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. https://www.drugpolicyfacts.org/cms/files/samsha\_underage\_drinking\_study08.pdf
- Radloff, L. S. (1977). The CES-D Scale: A self-report report depression scale for research in the general population. *Applied Psychological Measurement*, *1*(3), 385–401. https://doi.org/10.1177/014662167700100306
- Reid, S. D. (2015). Time for a regional alcohol policy: A literature review of the burden of normative alcohol use in the Caribbean. *Journal of Public Health Policy*, *36*(4), 469–483. https://doi.org/10.1057/jphp.2015.27
- Riley, A. W., Valdez, C. R., Barrueco, S., Mills, C., Beardslee, W., Sandler, I., & Rawal, P. (2008). Development of a family-based program to reduce risk and promote resilience among families affected by maternal depression: Theoretical basis and program description. *Clinical Child and Family Psychology Review*, 11(1–2), 12–29. https://doi.org/10.1007/s10567-008-0030-3
- Rohner, R. P. (1986). *The warmth dimension: Foundations of parental acceptance-rejection theory*. Sage Publications.
- Rosa, E. M., & Tudge, J. (2013). Urie Bronfenbrenner's theory of human development: its evolution from ecology to bioecology. *Journal of Family Theory & Review*, *5*(4), 243–258. https://doi.org/10.1111/jftr.12022
- Saunders, J. B., Higgins-Biddle, J. C., & Babor, T. F. (2001). *The Alcohol Use Disorders Identification Test: Guidelines for use in primary health care*. World Health Organization.
- Schlesinger, B. (1968). Family patterns in Jamaica: Review and commentary. *Journal of Marriage and the Family*, 30(1), 136–136. https://doi.org/10.2307/350234
- Schuckit, M. A., & Smith, T. L. (1996). An 8-year follow-up of 450 sons of alcoholic and control subjects. *Archives of General Psychiatry*, *53*(3), 202–210. https://doi.org/10.1001/archpsyc.1996.01830030020005

- Sher, K. J., Grekin, E. R., & Williams, N. A. (2005). The development of alcohol use disorders. Annual Review of Clinical Psychology, 1(1), 493–523. https://doi.org/10.1146/annurev.clinpsy.1.102803.144107
- Sher, K. J., Walitzer, K. S., Wood, P. K., & Brent, E. E. (1991). Characteristics of children of alcoholics: Putative risk factors, substance use and abuse, and psychopathology. *Journal of Abnormal Psychology*, 100(4), 427–448. https://doi.org/10.1037/0021-843X.100.4.427
- Shinar D., Gross C. R., Price T. R., Banko M., Bolduc P. L., & Robinson R. G. (1986). Screening for depression in stroke patients: The reliability and validity of the Center for Epidemiologic Studies Depression Scale. *Stroke*, *17*(2), 241–245. https://doi.org/10.1161/01.STR.17.2.241
- Smith, G. T., Goldman, M. S., Greenbaum, P. E., & Christiansen, B. A. (1995). Expectancy for social facilitation from drinking: The divergent paths of high-expectancy and low-expectancy adolescents. *Journal of Abnormal Psychology*, 104(1), 32–40. https://doi.org/10.1037/0021-843X.104.1.32
- Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine*, 166(10), 1092–1097. https://doi.org/10.1001/archinte.166.10.1092
- Sudhinaraset, M., Wigglesworth, C., & Takeuchi, D. T. (2016). Social and cultural contexts of alcohol use: Influences in a social-ecological framework. *Alcohol Research: Current Reviews*, *38*(1), 35–45.
- Sutherland, M. E., & Ericson, R. (2010). Alcohol use, abuse, and treatment in people of African descent. *Journal of Black Studies*, 41(1), 71–88. https://doi.org/10.1177/0021934708331169
- United Nations. (2011). *Men in families and family policy in a changing world*. United Nations Publication.
- Velleman, R., Bennett, G., Miller, T., Orford, J., Rigby, K., & Tod, A. (1993). The families of problem drug users: A study of 50 close relatives. *Addiction*, 88(9), 1281–1289. https://doi.org/10.1111/j.1360-0443.1993.tb02150.x
- Worthington, J., Fava, M., Agustin, C., Alpert, J., Nierenberg, A. A., Pava, J. A., & Rosenbaum, J. F. (1996). Consumption of alcohol, nicotine, and caffeine among depressed outpatients: Relationship with response to treatment. *Psychosomatics*, *37*(6), 518–522. https://doi.org/10.1016/S0033-3182(96)71515-3

Zimmermann, P., Wittchen, H.-U., Hofler M., Pfister, H., Kessler, R. C., & Lieb, R. (2003). Primary anxiety disorders and the development of subsequent alcohol use disorders: A 4-year community study of adolescents and young adults. *Psychological Medicine*, *33*(7), 1211–1222. https://doi.org/10.1017/S0033291703008158

## APPENDIX A: PARTICIPANT DEMOGRAPHICS

- 1. Where did you find this survey?
  - a. E-mail
  - b. Facebook Group
  - c. WhatsApp
  - d. Other social media
- 2. What was your biological sex at birth?
  - a. Male
  - b. Female
- 3. What is your gender identity (Check all that apply)?
  - a. Male
  - b. Female
  - c. Non-Binary
  - d. Prefer not to say
- 4. What is your sexual identity/sexual orientation?
  - a. Heterosexual
  - b. Gay
  - c. Lesbian
  - d. Bisexual
  - e. Pansexual
  - f. Unsure/Prefer Not to say
- 5. What is your current age?
- 6. What is your highest level of education?
  - a. Some All Age School
  - b. Graduated All Age School
  - c. Some Secondary School
  - d. Graduated Secondary School
  - e. Some High School
  - f. Graduated High School
  - g. Some College
  - h. Graduated College
  - i. Other
- 7. What is your mother's highest level of education?
  - a. Some All Age School
  - b. Graduated All Age School
  - c. Some Secondary School
  - d. Graduated Secondary School
  - e. Some High School
  - f. Graduated High School
  - g. Some College
  - h. Graduated College
  - i. Other
- 8. What is your father's highest level of education?
  - a. Some All Age School

- b. Graduated All Age School
- c. Some Secondary School
- d. Graduated Secondary School
- e. Some High School
- f. Graduated High School
- g. Some College
- h. Graduated College
- i. Other
- 9. What country or countries did you grow up in?
- 10. Who raised you?
  - a. Both parents
  - b. Mother only
  - c. Father only
  - d. Grandparent
  - e. Other family Member
- 11. What country do you currently live in?
  - a. \*included drop down list of all countries\*
- 12. In what parish do you live?
  - a. \*included drop down list of all countries \*

*In regard to your Family Structure growing up please answer the following questions:* 

- 13. With whom did you live from birth to age 18?
  - a. Both Parents
  - b. Mother Only
  - c. Father Only
  - d. Other (ie. grandparents, aunt etc.)

# **APPENDIX B: TABLES**

**Table 1**Demographic Characteristics

Gender	Percent (%)	Frequency		
Female	76.5	104		
Male	22.8	31		
Female and another (i.e.,	0.7	1		
Genderfluid, Non binary)				
<b>Education Level</b>				
Primary	1.5	2		
All age	2.2	3		
High school	47.8	65		
Vocational training	17.6	24		
College	28.7	39		
Other	2.2	3		
<b>County Representation</b>				
Cornwall	18.38	25		
Middlesex	54.41	74		
Surrey	27.21	37		
Sexuality				
Heterosexual	65.4	90.32		
Bisexual	8.8	12.31		
Another (asexual spectrum;	9.5	13.33		
lesbian, pansexual,				
questioning, "heteroleaning")				
Preferred not to say	16.2	20.03		
Age				
18	18.4	25		

19	9.6	13
20	15.4	21
21	17.6	24
22	10.3	14
23	8.8	12
24	11.8	16
25	5.1	7
26	1.5	2
27	.7	1
29	.7	1
Total	100%	136

 Table 2

 Gender Differences in Depression, Anxiety, Alcohol Use and Parental Warmth/Overprotection

	Females		Males		t value	df	p value
	M	SD	M	SD			
CESD score	27.13+	14.20	21.75+	12.64	-1.94	126	0.055+
GAD-7 score	10.64**	6.05	6.97**	6.07	-2.96	132	0.004**
AUDIT scores	5.79*	6.84	8.71*	8.19	1.99	132	0.049*
Parental warmth	19.83	5.02	20.26	5.57	0.40	131	0.69
Parental overprotection	22.62**	6.57	18.83*	7.50	-2.67	126	0.009**
			*				

*Note.*  $M = \text{Mean. } SD = \text{Standard Deviation. Center for Epidemiologic Studies Depression Scale ranges from 0 (low) to 60 (high). GAD-7 ranges from 1(low) to 21(high). <math>^+p < .10, ^*p < .05, ^{**}p < .01.$ 

 Table 3

 Correlation Matrix for Alcohol Use, Anxiety, Depression, Parental Warmth/Overprotection

Variable	n	М	SD	1	2	3	4	5	6
1.AUDIT score	135	6.50	7.24	-					
2.GAD-7 score	134	9.82	6.22	$0.25^{**}$	-				
3. CESD score	128	26.09	13.17	0.26**	0.73**				
4. Parental	133	19.98	5.15	-0.23**	-0.30**	-0.37**	-		
warmth									
5.Parental	128	21.68	6.95	0.07	0.30**	0.33**	-0.40**	-	
control									

*Note.*  ${}^{+}p < .10, {}^{*}p < .05, {}^{**}p < .01.$