Exploring the Minds of Emerging Adults:
A Quantitative Investigation into Risky Behavior

by

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Abstract

Emerging adulthood is a term used in the U.S. that describes the period of human development that begins in the late teens and continues through the late twenties, with a focus on the ages 18 to 25 years. Five key characteristics comprise emerging adulthood: identity exploration, instability, self-focus, feeling "in between," and possibilities. Each of these characteristics can also serve as a barrier to an individual successfully reaching adulthood, increasing one's likelihood of engaging in risky behavior.

A total of 151 college students participated in the current investigation, and each participant completed the Career Thoughts Inventory (CTI) and the Risky, Impulsive, and Self-Destructive Behavior Questionnaire (RISQ). Participants also provided demographic data. A primary conclusion is that there were statistically significant relationships among the dependent variables (i.e., risky behaviors measured by the RISQ, career thoughts measured by CTI) and independent variables (i.e., receiving services from the University's Office of Accessibility, race, sex, classification). In addition, there were statistically significant relationships for at least 50% of the questions in relation to CTI scores and engagement in risky behavior over the course of a lifetime in the following domains: (a) drug behaviors, (b) risky sexual behaviors, (c) heavy alcohol use, (d) self-harm, (e) impulsive eating, and (f) reckless behaviors.

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CHAPTER 1: INTRODUCTION

The term "emerging adulthood" was coined by Jeffery Arnett to describe the phase of human development in the United State that begins after adolescence but occurs prior to an individual entering adulthood. This phase of life spans from the late teens to the late twenties. Arnett (2000) described emerging adulthood as an era embodying the individuals' experiences and development when they are between the ages of 18 and 29 years. Thus, emerging adulthood is the time during which one transitions into adulthood.

However, the typical transition to adulthood has been altered by several things, such as higher numbers of people attending college than ever before, advanced requirements for individuals to be qualified for jobs, and people getting married for the first time later in life. Fifty years ago, most people had reached a point of security in roles associated with love and with work by the time they reached their late teens and early twenties. Most men had obtained full-time work once they reached their early twenties although women rarely held jobs outside of their homes, and the average age at which a person got married in the United States was around 20 years (Arnett & Taber, 1994). The higher rates of college attendance that we see today are leading to higher numbers of people beginning their careers in their late twenties. In addition, the average age of marriage has also been climbing. According to U.S. Census Bureau data (2011), women got married at an average age of 27 years while men married around 29 years of age.

Due to such delays in work and marriage, as noted by Arnett (2000), individuals are engaging in experiences associated with the emerging adulthood phase (e.g., identity exploration in love, work, and self; instability in work and residence; feelings of being "in between" adolescence and adulthood; being optimistic about the future) because some of these experiences have not yet been tested with reality (Arnett, 2000). In addition to aforementioned experiences,

emerging adulthood is also be a time when people engage in risky behavior such as binge drinking, substance abuse, driving under the influence, and frivolous sexual activity (Schawartz & Petrova, 2019). Those in this phase of life engage in such behaviors for various reasons, including pleasure, identity exploration, and coping with the stressors associated with reaching adulthood (Arnett, 2000; Reynolds et al., 2013).

Statement of the Problem

According to Park et al. (2006), over 96% of individuals between the ages of 18 and 24 years report being in good health. However, the Centers for Disease Control and Prevention (2018) acknowledged that more unnatural deaths occur among those in emerging adulthood than those between 1–14 years of age and those 35 years and older. Among those who die between the ages of 15 and 24 years, over 78% of the deaths are unnatural and highly preventable. For instance, in 2017, among the deaths of those aged 20–24, 45% were due to motor vehicle accidents, 18% were due to suicide, and 15% were due to homicide (Heron, 2019). As Arnett (1998) shared, engaging in risky behavior is extremely problematic during emerging adulthood. During this period, instances of illicit drug use, substance abuse, binge drinking, and risky sexual behavior peak (Roeser et al., 2018). So while individuals may be exploring their identities and trying new things in efforts to make permanent decisions regarding their lives, their high levels of engagement in risky behaviors could increase the likelihood of negative consequences and effects, including death.

Purpose of Study

The purpose of the present study is to investigate the relationship between factors related to emerging adults' career-related thoughts and their levels of engagement in risky behaviors. This study offers an examination into the possible dysfunction in individuals' thoughts about

their careers and futures and their engagement in risky behavior. Dysfunctional career thoughts are cognitions related to behaviors, beliefs, feelings, plans, and/or strategies that prevent effective career problem solving and decision making (Sampson et al., 1996). Understanding the way someone feels about the possibilities that await them in the future may have an impact on his or her behavior to the extent that it ensures that their future becomes a reality. A better understanding of the relationship between dysfunctional career thoughts and engagement in risky behavior may allow practitioners who provide services to emerging adults to more effectively minimize individuals' engagement in risky behavior. Results from this study may also provide practitioners with more tools to support emerging adults in their transitions into adulthood.

Research Questions

Several research questions guided the current study of risky behavior and the impact of this behavior on emerging adults' transitions to adulthood. These questions, all connected to participants' responses on the Career Thoughts Inventory (CTI), are as follows:

1. Is there a correlation between high scores on the CTI and high engagement in risky behaviors over the lifetime?
2. Is there a correlation between low scores on the CTI and higher engagement in risky behaviors due to feelings of excitement, to get a thrill, or to feel pleasure?
3. Is there a correlation between high scores on CTI and high engagement in risky behaviors due to stopping feelings of being upset, distressed, or overwhelmed?
4. Is there a correlation between high scores on CTI and engaging in risky behavior for the first time at the age of 18 years or younger?

Definitions of Terms

The following terms and abbreviations will be used throughout the current study and are defined as follows:

Career Thoughts Inventory: The Career Thoughts Inventory (CTI) was developed by Sampson et al., originally published in 1994, and updated in 1996. In this assessment, a person's level of *career thinking* (positive) and *career dysfunction* (negative) are explored, providing an overall score and scores on three different subscales. The three subscales of the CTI include measures of decision-making confusion (DMC), commitment anxiety (CA), and external conflict (EC).

Emerging adulthood: Refers to the period when an individual is between the ages of 18 and 25 years that are considered neither adolescence nor full adulthood. Emerging adulthood differs from other life stages as it is characterized as an age of identity exploration, instability, self-focus, feelings of being "in between," and possibilities (Arnett, 2000, 2004). Similarly, an "emerging adult" refers to an individual in this stage of life.

Risky behaviors: Behaviors that lead to poor or adverse outcomes such as unintentional injury and violence, unintended pregnancy, sexually transmitted diseases, and alcohol and substance abuse (Centers for Disease Control and Prevention, 2018).

Risky, Impulsive, and Self-Destructive Behavior Questionnaire: A 38-item self-report questionnaire that measures risky, impulsive, and self-destructive behaviors across eight different domains, including aggression, self-harm, gambling, impulsive spending/driving, impulsive eating, risky sex, illegal behavior, and alcohol use (Sadeh & Baskin-Sommers, 2017).

CHAPTER 2: REVIEW OF THE LITERATURE

The current study was designed to explore the career-related needs of emerging adults, with the ultimate goal of minimizing risky behavior. The literature reviewed in this chapter covers (1) the phase of life known as "emerging adulthood" as an age of identity exploration, instability, self-focus, feeling "in between," and possibilities; (2) risky behavior associated with emerging adulthood, including alcohol use, substance abuse, high risk sexual practices, unintentional injuries, and unnatural deaths; and (3) the cognitive information processing model, which is the theoretical framework that guided this inquiry.

Emerging Adulthood and the Five Features

The concept of "emerging adulthood" refers to the age group between the late teen years throughout the middle-to-late 20s (Arnett, 2000). According to Arnett (2006), there are five main features that may characterize emerging adulthood: (1) identity exploration, (2) instability, (3) feeling in-between, (4) self-focus, and (5) possibilities. Throughout emerging adulthood, individuals constantly cycle into and out of feelings of independence and needing caretakers to function. Individuals may also have problems and feel stuck in an in-between stage when attempting to take advantage of adult privileges and exercise complete autonomy. For example, a college student may not have a curfew and have the freedom to do what they want, but the student could be financially dependent on parents. Emerging adulthood as an age of self-focus stems from these individuals not having to fully partake in adult responsibilities such as paying rent, making car payments, or taking care of a child (Arnett, 2000).

In the field of human development, Erik Erikson's eight stages of psychosocial development are the foundation of many other theories (Dunkel & Sefcek, 2009). Erikson's theory of psychosocial development hinges upon the idea that human development occurs in a

sequence of fixed stages, and the outcomes of the beginning stages impact the results of later stages. According to Erikson (as cited in Dunkel & Sefcek, 2009), individuals experience "identity versus role confusion" during the ages of 12 to 18 years. Self-exploration is escalated while individuals engage in a variety of social activities as they attempt to find their places in society and establish their identities. Erikson was first to acknowledge the idea that individuals complete identity formation during adolescence and before adulthood; however, in today's more evolved society, that is not necessarily true.

Today's society is more modern, and technology has been incorporated into our jobs and our everyday lives. One of the reactions to this modernization is individuals pursuing educational opportunities at higher rates and for longer periods of time in efforts to secure employment that will become the foundation of their adult lives (Arnett, 2000). As a result of these longer educational and academic routes, some of the characteristics identified by Erikson that were typically representative of adulthood (e.g., marriage, stable worldviews, identity formation) are delayed while individuals try to establish careers that would provide their life income (Arnett, 2000). While delaying these activities that Erikson consider part of adulthood, individuals explore their identities via social activities to prepare to make decisions in the future that may have long-term impacts on their lives (Arnett et al., 2014).

Prior to the industrialization of society, individuals anchored themselves to certain adult roles while they were in their late teen to early 20s. Nowadays, the markers of adulthood used in the past, including marriage, parenthood, and living on your own, are no longer true indicators (Arnett, 2000). In 1960, the average age of marriage was 20 years for women and 22 years for men, and couples usually gave birth to their first child in their first year of marriage (Arnett, 2011). In today's society, however, more people are pursuing formal education beyond high

school. Of the 2.9 million high school graduates in 2017, 67% were enrolled at either two- or four-year institutions by October ("Immediate College," 2019). According to the U.S. Census Bureau (2019), the average age at first marriage is now 30 years for men and 28 years for women. Various societal changes have given life to this developmental period of "emerging adulthood," such as broader access to birth control and the availability of graduate studies beyond the Bachelor's degree level (Arnett, 2006). Arnett (2000) developed the idea of "emerging adulthood" in an attempt to explain the era of human development that lasts from 18 years to around 25 years in relation to the evolution of society.

In addition, the housing economy has supported the early adulthood phase. In an analysis of U.S. Census Bureau data, Woo (2016) found that from 1960 to 2014, rental costs had risen by 64% while household income had only increased by 18%. Due to such societal and economic shifts, more individuals are staying at home with their parents through emerging and young adulthood—unable to reach the type of housing independence that was once more common. According to Choi et el. (2019), the number of people between the ages of 25 and 34 years that still lived with their parents increased from 12% to 22% between the years 2000 and 2017.

An Age of Identity Exploration

One of the major components of emerging adulthood is identity solidification (Schwartz et al., 2005). Emerging adults explore the world around them to understand and identify the things to which they may want to commit in different areas of life. The term *exploration*, in this sense, can be defined as questioning and testing various identities, and commitment can be made as a result of such exploration (Luyckx et al., 2006). Emerging adulthood provides unique opportunities that possibly allow individuals to engage in experiences without responsibilities such as bills, full-time work, and family obligations. Identity exploration in emerging adulthood

is common in the areas of love and occupation (Mayseless & Keren, 2013). Individuals may also engage in a high level of exploration due to having less supervision and newfound freedom once they leave home for college or work. The combination of a lack of commitment and few responsibilities provides individuals with opportunities to engage in exploration of work, love, and other interests.

Throughout emerging adulthood, an individual is still undergoing the process of committing to an identity as this is not usually done during high school (Schwartz et al., 2015). This is usually visible via the romantic exploration that occurs during emerging adulthood, especially as sexual experiences occur outside the realm of committed dating relationships. Research supports that about half of sexually active young adults have been sexually involved with people that they were not dating (Manning et al., 2005). In another study (Manning et al, 2014), it was found that a third of young adults have had more than one casual sexual partner. According to Garcia et al. (2012), 80% of college students reported that they had "hooked up" at least once during college. Manning et al. (2005) divides sexual relationships into three groups: consistent partners (e.g., a committed relationship), casual partners (e.g., friends with benefits), and one-night stands. Vrangalova (2015) defines a *one-night stand* as sex with a stranger or brief acquaintance in the absence of relationship expectations and *casual sex* as an encounter that can last for several days or months and be considered as *friends with benefits*. Relationships like these allow emerging adults to explore various types of romantic relationships.

Identity exploration in emerging adulthood can also be observed through one's choice of work as job changes occur more frequently during this stage of life. On average, a person holds 12 jobs between the ages of 18 and 52 years, but half of these job changes occur before the person reaches 25 years of age (U.S. Department of Labor, 2019). Many people change jobs

during their adolescent years for two main reasons, to explore their work preferences and because they will work in positions that they do not view as careers (Mortimer, 2010). Teenagers usually work in restaurants and department stores to support their hobbies, pay for school, and/or meet short-term financial goals (Mortimer, 2010). However, during emerging adulthood, individuals' perspectives about work change. Emerging adults view work as a permanent responsibility that is foundational to their lives versus simply means to an end (Grosemans et al., 2020). Arnett (2015) noted that emerging adults may ask themselves questions such as, "What type of work can I do well? What kind of work do I want to do long term?" (p. 10).

Emerging adulthood also runs alongside college for those who attend. Through selecting different majors, working, and engaging in internships, volunteer experiences, and extracurricular activities, individuals gain knowledge about their employment and career preferences. Also, as individuals complete coursework and take tests, they gain valuable insight into their strengths and weaknesses. Emerging adults may experience hardship and struggles while completing college coursework, but such experiences give them a clearer view of their skillsets (Arnett, 2015). Certain setbacks related to romantic and career exploration can also be used to fuel personal growth for emerging adults.

Emerging adults are more focused on the long-term effects of their actions related to work and romantic relationships, and this focus increases over a period of time (Arnett, 2000). Through identity exploration, individuals become aware of who they are and what they want to do for a living, which helps them reach identity completion. However, every action that occurs during identity exploration is not in preparation for adult roles. Identity exploration also includes pleasure, and the lack of role commitments enable identity exploration in ways that are not

realistic once an individual goes beyond his or her 30s (Arnett, 2000). Identity exploration occurs in many facets of life, including adventure, social outings, romantic interest, work, risky behaviors, and lifestyles (Ravert, 2009). Thus, emerging adulthood is ideal for identity exploration as individuals gain insight and prepare themselves for lifelong commitments .

An Age of Instability

As a result of identity exploration, emerging adults' life experiences may contribute to the age of instability. The ages of 18 to 25 years can be the most unstable years of life (Arnett, 2014). Due to their lack of commitment and engagement in new experiences, emerging adults are not stable in certain areas (e.g., love, work), which can lead to frequent changes in one's job and residence. The U.S. Department of Labor (2019) pointed out the many job changes that may occur between 18 and 24 years of age. Emerging adults explore various career paths and postsecondary degree areas, both of which impact job changes during this time (Blustein, 2004). Those in emerging adulthood are also likely to switch jobs at rates higher than those in other stages of the lifespan due to not being restricted by the responsibilities of a family or others being impacted by their work-related decisions.

Due to the constant job changes that occur during emerging adulthood, individuals in this stage also change residences frequently. In addition, many young Americans leave home after high school to pursue education or work. Thirty-three percent of emerging adults shift their living situations during college, moving from dormitories to sorority and fraternity houses and on to apartments with roommates (Goldscheider & Goldscheider, 1994). The frequency of individuals' residential changes usually peaks during their mid-20s (Rindfuss, 1991). Arnett (2000) also shared that 40% of emerging adults' residential changes include moving home with

parents upon completion of school and moving back out once they establish financial independence.

People are also staying in school longer, adding to emerging adults' feelings of instability. College-enrollment rates have increased 195% since 1970, a time when only 3.5% of the U.S. population were college students (Bustamante, 2019). Individuals usually attend college after high school, around 18 years of age, and they can remain in college well into their 20s in pursuit of Bachelor's, Master's, or doctoral degrees. The advancement of technology and the way this impacts jobs has led to individuals staying in school longer and needing support in areas like rent, bills, and paying for school. Emerging adults typically have no desire to commit to living situations when they lack stability in other areas, for example, work. This conclusion can be reached from research indicating that most changes in residency peak when individuals are in their mid-20s (Rindfuss, 1991) and that most job changes happen between the ages of 18 and 24 years (U.S. Department of Labor, 2019). Trends such as these contribute to the extension of the time it takes for emerging adults to reach adulthood.

An Age of Self-Focus

Emerging adulthood is a time during which people are the most self-focused (Arnett, 2015). Although people focus on the self at other stages in life, there are still characteristics that set self-focus apart during emerging adulthood. Emerging adulthood is the only time throughout the lifespan when an individual's main responsibility and priority is themselves (Arnett, 2015). During childhood and adolescence, individuals have expectations from parents, teachers, and other authoritative figures that may hinder individuals from solely focusing on their wants and desires. As an adult, individuals may have responsibilities and be focused on the needs of a spouse and/or children. Emerging adulthood is wedged between one's responsibility to childhood

authoritative figures and adulthood responsibilities (e.g., permanent employment, bills, family). Emerging adulthood is an age of self-focus due to the lack of social responsibility in the manner of duties and responsibilities to other people, which creates autonomy in decision making and behaviors (Arnett, 2006).

According to Arnett et al. (2014), 73% of individuals aged 18 to 29 years agreed with the statement, "At this time of my life, I have a great deal of freedom." Emerging adults have more freedom and daily decision making, which reinforces individuals' focus on self. During emerging adulthood, individuals make decisions about matters such as cooking or ordering food, attending classes, and/or staying out for social events. In an age of self-focus, individuals may view their parents' input as *advice* instead of *law* that will result in negative consequences. This age of self-focus enables individuals to develop skills in different areas of life and deepen their understanding of who they are and what they want from life to establish a foundation for the lifestyle they want to live in adulthood (Arnett, 2006). Emerging adults understand that they must, at some point, support themselves, and they may emphasize actions that will lead them to being able to move into adulthood. Emerging adults are focused on strengthening their ability to sustain life on their own and complete the identities that they view as adulthood (Arnett, 2006).

An Age of Feeling "In Between"

Emerging adults are "in between" a lot of different areas in their life, two being adolescence and adulthood. Emerging adulthood is also a life stage in which individuals no longer feel like adolescents, but they have not fully taken on permanent roles and responsibilities that come with adulthood (Arnett, 2000). Emerging adults are usually in between when it comes to long-term romantic relationships and commitments to marriage (Nelson et al., 2004). Most emerging adults are in between in terms of establishing careers and permanent work roles.

Emerging adulthood is also a period of time where individuals seek opportunities related to education, such as internships, graduate school, and international education programs in attempts to obtain permanent jobs as they transition into adulthood (Nelson et al., 2004).

Due to instability in work and romance, emerging adults may also be in between temporary and permanent residences. Emerging adults' feelings of being in between is demonstrated in the standard they set for themselves during the transition. Some of the top criteria emerging adults associate with fully transitioning into adulthood is accepting responsibility for themselves, making independent decisions, and taking care of themselves financially (Arnett, 2004). Acquiring permanent jobs provides a foundation that allows individuals to become responsible for themselves and settle into long-term residences. Emerging adults are in the transition of various life roles, and they remain in these in-between states until they meet their own criteria for full adulthood.

An Age of Possibilities

Emerging adulthood is considered an age of possibilities because long-term commitment to romantic relationships, homes, and work have not yet been made. Emerging adults are faced with uncertainty, exploration, and the absence of permanent life responsibilities (Munson et al., 2013). Thinking about and planning for the future is something that individuals at every life stage may think about, but these thoughts may be more intense during emerging adulthood. Such thoughts about the future can be positive or negative although emerging adults are typically optimistic about the future (Durbin et al., 2017). High hopes are also common among emerging adults because their ideal adult lives are yet to become reality. One can easily believe that a marriage can be perfect and that those who are yet to marry have no difficult days (Popenoe &

Whitehead, 2001). Because most emerging adults have not made long-term decisions, they still hold to high aspirations for their future (Arnett, 2006).

Emerging adults also have more freedom and independence, causing them to have high hopes and feel as if they can achieve their desired adult lives (Fonseca et al., 2019). Those who grow up in poor environments see the possibility to live better as adults and for their future children, and they are able to make certain life decisions without parental interference. Arnett (2006) acknowledged that emerging adulthood is a time of possibilities because individuals can make decisions that may improve their adult lives in ways that were not possible during their childhood and adolescence (Arnett, 2006). Emerging adulthood is also a time that represents change for many individuals due to their sense of control over their futures without fully experiencing the long-term results of decisions in different aspects of life that could have positive or negative outcomes (Arnett, 2000).

Emerging Adults and Risky Behavior

Some of the distinct features of emerging adulthood include being in between an adult and adolescent, exploring in work and romance, and testing childhood beliefs and values (Layland et al., 2018). A characteristic of emerging adulthood is a high level of engagement in risky behavior, including irresponsible alcohol consumption, substance and drug use, frivolous sexual behaviors, and actions that could result in unexpected injury (Schwartz & Petrova, 2019).

During adolescence, individuals evolve physically, emotionally, and mentally (Konrad et al., 2013). The ability to think logically matures by the age of 15 years, but certain parts of the brain (e.g., the part that allows resistance against peer pressure) and other dimensions of human development that impact behavior continue to evolve even as humans reach young adulthood (Steinburg, 2007). Brain development plays a role in adolescents' willingness to engage in risky

behaviors. As individuals transition into adulthood, the brain undergoes a restructuring process that is not completed until the age of 25 years (Arain et al., 2013). Emerging adults are more susceptible to engage in risky behavior during this stage of their lives. As Steinburg (2008) noted, over time, the brain matures and improves an individual's ability to manage impulse and process the short- and long-term consequences of their actions (Steinburg, 2008). The part of the brain that regulates desire and impulsivity is more advanced than the region of the brain that regulates decision making and social behavior during late teens and early 20s (Schwartz & Petrova, 2019).

Peer relations are critical in the age of identity exploration, causing individuals to be more susceptible to peer pressure and more involved in risky behaviors (Allen et al., 2006). A driver between the ages of 18 and 21 years might feel pressure to drive aggressively when passengers are in the car due to thoughts that their passengers expect or desire this driving style, but the same driver may drive more safely without passengers (Simmons-Morton et al., 2005). College students spend a lot of time with their peers in their living environments, at fraternity or sorority houses, and in classes. Being in a social setting may possibly increase one's desire to fit into social/peer groups. Among adolescents, peers have the strongest effects on the ways an individual uses his or her free time (Ciairano et al., 2007).

Developing peer relationships can have both positive and negative outcomes. Although friendships provide humans with support and identity, improve their self-worth, and help them develop a sense of belonging, they can also cause individuals to engage in undesirable actions or activities to sustain this sense of belonging (Ciairano, 2007). Individuals may feel as if they must engage in risky behaviors to make friends and be accepted socially. For example, someone may

choose to drink while at a bar if the others in their social group are drinking to maintain the social norms of the group.

In a study by Gardner and Steinburg (2005), 306 individuals across three age groups, including adolescents aged 13 to 16 years, youth aged 18 to 22 years, and adults 24 years of age and older, completed 2 questionnaires assessing their risk preferences and risky decision making and 1 behavioral task measuring their risk taking. Participants were randomly assigned to complete the measures either alone or with two peers in the same age group. They found significant effects of peer presence on all three measures of risk orientation. Results indicated that the effects peers had on risk taking and risky decision making were stronger among adolescents and youth than adults, which supports the notions that individuals aged 18 to 25 years are more prone to engaging in risky behaviors than adults and that peer influence influences decision making during emerging adulthood. For example, vehicle crash rates are higher for young adults when there are two or more passengers in the vehicle (Arnett, 2002).

In addition to the five stages of emerging adulthood (Arnett, xxxx), emerging adults' brains undergo a maturation process that impacts their social, emotional, and cognitive skills (Walker et al., 2017). The rate of brain growth and development during emerging adulthood is the second fastest of that occurring at any other stage of life stage, with only infancy coming first (Arain et al., 2013). The amygdala and prefrontal cortex play a significant role in emerging adults' engagement in risky behavior. The amygdala impacts the reward circuit in the brain and may impact decisions that will yield extreme sensation for psychological rewards (Walter et al., 2017).

The prefrontal cortex is the region of the brain responsible for impulse control and delayed gratification, foresight and weighing possible consequences of behavior, future

orientation, emotional regulation, and information processing information (Arain et al., 2013). The prefrontal cortex, which controls executive functioning, is not fully developed until individuals reach their late 20s while the amygdala is developed around puberty (Johnson et al., 2009). Emerging adults may be more susceptible to engaging in risky behaviors driven by sensation-seeking due to an underdeveloped prefrontal cortex disabling emotional regulation and the consideration of long-term consequences. The amygdala is part of the reward pathway that causes the brain to seek behaviors that provide intense emotional responses without regard for consequences (Arain et al., 2013).

According to Arnett (2000), emerging adults tend to engage in more risky behaviors stemming from their identity exploration and attempts to find their role in society. Some of these behaviors may include sensation-seeking. Sensation-seeking refers to a personality trait that motivates individuals to seek extreme, intense experiences and be willing to take physical, social, legal, and financial risks for the sake of these experiences (Zuckerman, 1994). Sensation-seeking activities can include reckless driving, risky sexual experiences, excessive alcohol use, substance use, and other risky behaviors (Arnett, 2004). As Roeser et al. (2018) noted, emerging adults' risky behaviors can result in lower grades at school, missed job opportunities, impaired or reckless driving, unsafe sexual engagement, and unintentional injuries and death. The process of identity exploration is filled with experiences that support self-growth and identity completion, but this process may also include engaging in many risky behaviors (Ravert et al., 2013).

The Youth Risk Behavior Surveillance System was created in 1990 to highlight behaviors that play a role in the leading causes of death, disability, and social difficulties among youth and adults in the United States (Centers for Disease Control and Prevention, 2018; CDC). The CDC (2018a) identified risky behaviors as behaviors that lead to unintentional injuries and violence,

unintended pregnancy, sexually transmitted diseases, and alcohol and substance abuse. Car accidents are the number one cause of death for adolescents. In 2018, 24% of those between the ages of 15 and 20 years who died in car accidents had blood alcohol levels of .01 or higher (National Center for Statistics and Analysis, 2019). Also in 2018, the highest percentage of drunk drivers with blood alcohol levels of .08 were between 21- and 24-years-old (National Center for Statistics and Analysis, 2019).

The numbers of deaths caused by opioids have also steadily increased over the last 10 years among adolescents and young adults. In 2006, the death rate from overdose of any type of illicit drug was 8.1 per 100,000 people between the ages of 15 and 24 years (Ali et al., 2019). However, this statistic rose to 9.7 per 100,000 people in 2015. In addition, the death rate stemming from opioid use increased to 4.8% from 2006 to 2015, but it rose to 15.4% between the years of 2013 and 2015 (Ali et al., 2019). Curtin and Heron (2019) identified suicide as the second leading cause of death for individuals between the ages of 10 to 14 years, 15 to 19 years, and 20 to 24 years of age in 2017, and they found homicides to be the third leading cause of death for people in the age groups of 15 to 19 years and 20 to 24 years.

Alcohol Use

Many people experiment with or drink alcohol at some point before they graduate from high school; however, peak alcohol consumption occurs during emerging adulthood (Chen et al., 2004). For college students living on campus, excessive drinking is not shamed and may even be encouraged in certain situations. Drinking alcohol could be considered an important part of the college experience as alcohol is usually a staple at college parties, in fraternity and sorority houses, and at other social gatherings. Those on the college campus have more access to resources to obtain alcohol, and binge drinking is not viewed as a negative behavior (Borsari &

Carey, 2001). Alcohol consumption increases between the ages 18 and 25 years due to individuals' newfound lack of supervision and increased freedom although consumption declines in adulthood when individuals start to accept permanent work responsibilities, get married, and start families (Chassin, 2002). Binge drinking refers to the consumption of five or more drinks within a two-hour timeframe for men and four or more for women in the same timeframe (Bartel et al., 2020). Binge drinking is more common among those between the ages of 17 and 25 years, peaking when people are 21 to 22 years of age and declining around age 26 years (Arnett, 2000).

Many negative outcomes are associated with binge drinking, such as car accidents, unintended death, and various health problems. In the United States, vehicle crashes are the leading cause of death for teens, and about 25% of these crashes involve an underaged driver who has been drinking (National Highway Traffic Safety Administration, 2018). Young adults are more likely than others to drive after drinking, drive faster, drive closer to cars in front of them, and infrequently use seat belts (Arnett, 1992). Hingson et al. (2009) found that 1,825 college students between the ages of 18 and 24 years of age die each year from alcohol-related injuries. More freedom and the absence of responsibilities during emerging adulthood equates to less supervision and fewer rules for emerging adults to follow. As they enter adulthood, high risk drinking tapers off due to the increase in adult roles and responsibilities (Arnett, 2002).

Substance Use

Emerging adults typically use drugs at higher rates than adolescents and those classified as adults (Arnett, 2000). The Substance Abuse and Mental Health Services Administration (SAMHSA) surveyed over 67,000 individuals aged 12 years and older about their illegal drug use (SAMHSA, 2019). Results indicated that individuals aged 18 to 25 years smoked more cigarettes; used illicit drugs; used cocaine, heroin, hallucinogens, and methamphetamines; and

misused prescription medication more than individuals between the ages of 12 and 17 years and those 26 years and older (SAMHSA, 2019). Data from SAMHSA also demonstrates that those aged 18 to 25 years use illegal drugs at higher rates than adolescents and adults 26 years and older for the past 20 years. In 2002, SAMHSA reported (as cited in Arnett, 2005) that 23% of 18- to 20-year-olds and 19% of 21- to 25-year-olds used illicit drugs, rates of which were higher than those in the age groups of 12 to 17 years and 26 years and older.

Substance use may be associated with identity exploration for some, and it is known that all experiences in identity exploration are not positive. Some individuals may use drugs while seeking pleasure or fulfillment, engaging in hobbies, or simply trying new things. Individuals in search of identity completion may use drugs to determine whether or not they want to do so in adulthood (Arnett, 2005). In addition, drug use may be associated with attempts to manage stress. During identity exploration, emerging adults may feel stressed due to their instability and the range of possibilities as Arnett (2014) noted that the ages of 18 to 25 years can be the most stressful, unstable years of life. Emerging adults in college may also experience academic stress in addition to stress stemming from romantic relationships, fruitful career searches that will lead to employment in the future, and the desire to fit into social groups. In terms of career searches, the Burning Glass Technologies and Strada Institute for the Future of Work (2018) found that 43% of college graduates were underemployed in the first year after college and that 66% of these underemployed graduates remain underemployed five years later.

Disappointment and rejection occurring during emerging adulthood can also cause individuals to use drugs as a means of coping. Although healthy coping mechanisms exist, a significant number of emerging adults use illicit drugs to deal with the stress. According to Hadland et al. (2017), 33% of adults in treatment for opioid addiction started using opioids

before they reached 18 years of age and 66% started before reaching 25 years of age. In addition to those between the ages of 18 and 25 years using illicit drugs at higher rates than adolescents and adults 26 years and older, they are also most heavily impacted by substance use disorders (Qadeer et al., 2019). According to National Center for Educational Statistics data (2019), there were over 30 million *emerging adults* in the United States. Data from the SAMHSA (2019) shows that also in 2018, 1 in 10 emerging adults had an alcohol use disorder, 1 in 7 had a substance use disorder, 1 in 13 had an illicit drug use disorder, and 1 in 100 had an opioid use disorder. So while emerging adulthood as "an age of possibilities" can be full of hope and optimism, it may also be a period plagued by substance abuse as emerging adults prepare and plan for unknown futures, search for identity, and endure the associated stress.

Risky Sexual Behavior

The ages of 15 to 24 years are important in the transition to adulthood, and this is a time of exploration, experimentation, and instability in love (Wendland et al., 2018). During identity exploration, individuals engage in experiences that help them make permanent decisions about their futures, and this includes sexual exploration. Emerging adults are more accepting of casual sex because it is viewed as an attempt to develop their sexual identities (Lefkowitz et al., 2004). Brain development in this phase also influences emerging adults' interest in sexual activities. During emerging adulthood, men and women receive an influx of testosterone, which increases their sexual desires (Feldstein et al., 2016). The combination of rapid brain development and intense identity exploration indeed increases the occurrence of risky sexual behavior.

Risky sexual behaviors are defined as sexual behaviors that carry a risk of a negative outcomes that may vary from person to person. Chawla and Sarkar (2019) define sexual risky behavior as sexual behaviors that can result in unintended health outcomes. In general, sex is not

considered a bad thing as even research shows that there are health benefits associated with sex. Sexual satisfaction is a component of individuals' overall well-being, and it has been proven to lower heart rate, blood pressure, and stress levels (Liu et al., 2016). Thus, not all sexual activity is considered "risky" despite there being a general risk.

However, sexual activity can be associated with several unintended outcomes. Those between the ages of 15 and 24 years contract half of all new sexually transmitted diseases (STDs), according to the CDC (2018b). The CDC (2018b) noted that during this year, there were 1,087,277 reported cases of chlamydia infection among those aged 15- to 24-years-old, which was 61.8% of all reported cases. Also, both men and women between the ages of 20 and 24 years of age had the highest rates of reported gonorrhea cases than those in any other age group of the same sex (CDC, 2018). In 2018, primary and secondary syphilis cases increased 14.9% among people between 15- and 19-years-old and 10.3% among people between 20- and 24-years-old (CDC, 2018). Unmarried women between the ages of 18 and 24 years reported the highest rates of unintended pregnancy in the United States (Kornides et al., 2015). It is clear that emerging adults' attempts to reach identity achievement may lead to permanent unintended consequences, some of which result from risky sexual behavior.

Unintentional Injuries and Unnatural Deaths

Human death is often a sad experience for family and friends of the deceased. However, death is sometimes a consequence of certain risky behaviors. Boyer (2006) defined risk-taking behaviors as behaviors that have a probability of undesirable results. Unintentional deaths include those resulting from unintentional events such as car accidents and accidental poisoning as well as intentional events such as suicide (Slockers et al., 2018). Risky behaviors can include heavy drinking, substance abuse, unprotected sex, reckless driving, gambling, and unlawful

activities (Ben-Zur & Zeidner, 2009). A defining characteristic of emerging adulthood is frequent risk-taking, including activities like binge drinking, illicit drug use, reckless driving, and frivolous sexual activity (Schwartz & Petrova, 2019).

Such activities are more common during emerging adulthood, which Arnett (2005) considered a time when individuals have more autonomy and less parental monitoring. Yet, the brain's prefrontal cortex, the region responsible for judgement, future orientation, and emotional management, is not yet fully developed (Kuhn, 2006), so during this period of identity exploration, people engage in a plethora of experiences, including risky behaviors, to discover their true identities and make adult decisions (Dumas et al., 2012). The combination of increased freedom, identity exploration, and underdevelopment of the prefrontal cortex may lead emerging adults to engage in risk-taking behaviors more than adolescents and older adults.

According to the CDC (as cited in Heron, 2019), motor vehicle accidents accounted for 45% of deaths of those aged 20 to 24 years in the year 2017. The National Institute of Mental Health (2020) noted that 6,211 individuals between the ages of 15 and 24 years completed suicide in 2018; suicide was the second leading cause of death among this age group, and deaths resulting from unintentional injury was first, at a total number of 12,044. During this era of identity exploration, people may engage in multiple risky behaviors at the same time, which increases the chances of negative unintended outcomes. In addition, Pickett et al. (2002) noted that people's engagement in one risky behavior may increase their likelihood to engage in other risky behaviors that could lead to death.

The National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (Suicide by Children and Young People, 2017) found that among 20- to 24-year-olds, 13% of suicides involved substance abuse and 60% of suicides involved illicit drug use. In

addition, the CDC (2012) found that drivers between the ages of 16 and 20 years are 17 times more likely to die in vehicle crashes when their blood alcohol concentrations are around .08% than when they have not been drinking. Emerging adulthood as a stage of life when identity exploration is common indeed increases the risk of unintentional death as a result of risky behavior and other activities and conditions.

Theoretical Framework: The Cognitive Information Processing Model

The origins of the cognitive information processing (CIP) model as a way of thinking about problem-solving and decision-making can be traced back to the 1970s (Reardon et al., 2011). In the early 2000s, Sampson et al. (as cited in Osborne, 2014) applied the CIP model to career decision-making. The CIP model can be used to help individuals identify barriers to potential careers and engage in a decision-making process that will lead them to their desired career goals (Sampson et al., 2020).

The CIP model is a counseling theory that can be applied to career counseling and possibly help lower individuals' levels of engagement in risky behavior. Hill et al. (2011) discovered that setting career goals enhanced identity development and led to participants' greater well-being. Goal setting can also aid in the identification of actions (e.g., risky behaviors) that are misaligned with one's goals (Locke & Latham, 2006). Emerging adults are usually attempting to identify their goals and make decisions about their futures. For example, an emerging adult who wants to become a doctor, buy a house, and start a family may set goals to reach these milestones. The transition to adulthood requires that people engage in a significant amount of goal setting to plan their futures (Shulman & Nurmi, 2010). Lindstrom et al. (2015) also explored the use of career development to lower young adults' levels of engagement in risky

behaviors, with results showing that participants should limit marijuana use as they set career goals.

The CIP model and approach to counseling is based on the pyramid of information processing domains and the CASVE (i.e., communication, analysis, synthesis, valuing, execution) cycle of decision-making (Osborne, 2014). In the CIP, a problem is defined as a gap between an existing and a desired state of existing or a goal (Sampson et al., 1999). Common career gaps that people face may involve choosing an occupation, a program of study, or employment (Peterson et al., 2003). Problem solving in the CIP is defined as using knowledge and thinking to reach the desired state of existing (Sampson et al., 1999). A career problem may be considered *solved* when a person makes a career choice based on the options he or she was considering. Once individuals recognize the gap, they attempt to analyze the cause, develop several plans to eliminate the gap, and eventually implement a course of action (Peterson et al., 2003). Decision-making in the CIP is defined as using cognitive, affective, and psychomotor processes to carry out the plan in specific steps (Sampson et al.,1999). Decision-making also includes developing a plan and understanding risks that could impact the actions required to achieve the plan (Peterson et al., 2003).

In the CIP, individuals must navigate a pyramid of information processing to make decisions and reach their desired state of existing. At the bottom of the pyramid is self-knowledge and occupational knowledge, making up the knowledge domain (Perry & Bentley, 2013). The knowledge domain is important because it encompasses the information being used to make decisions. The more knowledge an individual has about self and occupations, the more information he or she can use to make decisions and reach their desired state. The self-knowledge domain includes individuals' awareness of their values, interests, and skills (Peterson

et al., 2003). Understanding one's values can help individuals identify potential career opportunities that align with these values (Sampson et al., 1999). Occupational knowledge includes knowledge about the world of work and an understanding of the requirements that must be met for this desired job to be obtained (Perry & Bentley, 2013). The decision-making domain is above the knowledge domain. Osborne (2014) stated that the decision-making domain involves use of the occupational knowledge and self-knowledge to reach a desired state of existing via implementing a course of action.

According to the CIP, decision-making occurs in the five-phase CASVE cycle (Sampson et al., 1999). The first phase of this cycle is communication (C). In the communication phase, an individual becomes aware of the gap between their current state of existence and their desired state of existence (Perry & Bentley, 2013). Individuals become aware of this gap through external cues, such as life experiences and speaking to others (Sampson et al., 1999). Pearson et al. (2003) note that people also become aware of their internal thoughts, feelings, and behaviors associated with reaching this desired state.

The second phase of this cycle is analysis (A). In the analysis phase, the causes of the problem or gap are identified, and factors contributing to the gap are analyzed (Sampson et al., 1999). During the analysis phase, people may utilize assessments and computer-assisted career guidance programs to gain knowledge about the prerequisites for a desired career (Peterson et al., 2003). Synthesis (s) is the third phase of this cycle. During synthesis, possible courses of actions to reach the desired state are developed and evaluated until realistic plans arise (Perry & Bentley, 2013). In the synthesis phase, individuals may identify possible career choices and narrow their options to careers that seem most realistic (Peterson et al., 2003).

The fourth phase of the CASVE cycle is valuing (V). In the valuing phase, individuals evaluate the costs and benefits of each course of action with regard to themselves, others, and society (Sampson et al., 1999). Individuals also use their self-knowledge and occupational knowledge to rank and assign value to each course of action identified (Osborne, 2014). The fifth phase of the cycle is execution (E). In the execution phase, an action plan identified in the valuing phase is selected and put into action (Sampson et al., 1999). The execution phase consists of an individual making a commitment to the plan until the desired state of existence is reached (Perry & Bentley, 2013). The execution phase is where individuals may seek formal education, training experiences, volunteer work, and employment to close the gap and reach their desired state of existing (Peterson et al., 2003).

After an individual completes the CASVE cycle, he or she will return to the communication phase and determine if the execution of the plan has closed the gap. If the gap has been closed, individuals began to deal with problems that emerge from the solution; if the gap is not closed, they re-enter the CASVE cycle with new information and experiences to make more insightful decisions and close the gap (Perry & Bentley, 2013). In the CIP model, the CASVE cycle is used to help individuals monitor their behavior and evaluate their progress toward reaching their desired state of existence (Sampson et al., 1999).

At the top of the pyramid, above the decision-making domain, is the executive processing domain. This domain consists of three components: self-talk, self-awareness, and monitoring and control. Self-talk refers to the silent conversations that individuals have with themselves about their past, present, and future capabilities to complete a specific task (Sampson et al., 1999). Self-talk can be positive or negative and can influence thoughts, feelings, and behaviors (Walter et al, 2019). Positive self-talk can help people remain motivated during setbacks in reaching a

goal and help them stay focused on behaviors that help them reach their desired state (Sampson et al., 1999). Self-awareness refers to being aware of the ways thoughts and feelings impact behaviors in the decision-making process (Sampson et al., 2020). Monitoring and control refer to people's ability to track their progress and know when behavioral changes are needed to ensure that the desired state of existing is reached (Sampson et al., 1999). Emerging adults—those amidst ages of identity exploration, feeling "in between," possibilities, self-focus, and instability—may benefit from career counseling to set goals for stable futures and limit behaviors that increase the likelihood of people's goals not being accomplished.

CHAPTER 3: METHODOLOGY

The current study is an examination of risky behaviors in which individuals engage in during the emerging adulthood phase of human development. Arnett (2000) described emerging adulthood as an era embodying the individuals' experiences and development when they are between the ages of 18 and 29 years. Using a sample of college students, this correlational study is an exploration of relationships between risky behaviors, measured by the Risky, Impulsive, and Self-Destructive Behavior Questionnaire (RISQ), and career thinking, measured by the Career Thoughts Inventory (CTI), and relationships existing among the independent variables and career interest and career thinking. According to Creswell (2014), a correlation study involves the examination of the extent of relationships among variables. Correlation procedures result in correlation coefficients ranging from –1 to +1, which indicate a positive weak relationship, a positive strong relationship, a negative weak relationship, or a negative strong relationship (Hung et al., 2017).

The independent variables in this study are the results yielded from the Career Thoughts Inventory, and the three subscales of the CTI are designed to measure decision-making confusion (DMC), commitment anxiety (CA), and external conflict (EC). The CTI can be found in Appendix A. The dependent variables are the results of the RISQ (see Appendix B). The subscales from which results were taken include drug behaviors, risky sexual behavior, heavy alcohol use, self-harm, and reckless behaviors.

Study Participants and Instrumentation

The current study is an exploration of the emerging adulthood stage of life and risky behaviors that occur during this phase. Participants in this study include 151 undergraduate

students at Auburn University who self-identified as either a man or woman and was between the ages of 19 and 25 years.

The Career Thoughts Inventory

The CTI, which was used in this study, is based on the cognitive information processing (CIP) approach to career development and career services (Sampson et al., 1999). The CTI can be used in different ways, for example, a screening measure, a needs assessment, and a learning resource. The CTI can be used to screen individuals and assess their current level of negative career thinking and to identify the specific nature of their dysfunctional thinking. The CTI can also be used along with other counseling interventions to improve negative career thinking (Sampson et al., 1999). Each participant in the study completed the CTI by responding to 48 items using a 4-point scale. On the assessment, "0" represented "strongly disagree" and "3" represented "strongly agree."

The CTI provides a total score and three subscale scores (Sampson et al., 1999). The total score on the CTI is a single global indicator of dysfunctional thinking in career problem-solving and decision-making. The three subscales of the CTI include measures of decision-making confusion (DMC), commitment anxiety (CA), and external conflict (EC). The DMC scale exhibits the difficulty initiating or continuing the decision-making process from a result of immobilizing emotions and/or a lack of understanding on ways to make decisions. The CA scale sheds light on an individual's inability to commit to a specific career choice in addition to generalized anxiety about the decision-making process. The EC scale reflects the difficulty an individual has balancing the input from an individual's own thoughts and outside influence on important decision-making processes.

According to Sampson et al. (1999), the CTI has been empirically proven as a reliable and valid measure of dysfunctional career cognitions. The CTI was standardized on data collected from adults (n = 571), college students (n = 595), and high school students in Grades 11 and 12 (n = 396). The internal consistency of the CTI total score and construct scales was determined by calculating coefficient α levels for each respective norm groups. Internal consistency coefficients for the CTI total score ranged from .97 to .93. The α coefficients for the construct scales ranged from .94 to .74 (Sampson et al., 1999). Having good test-retest reliability indicates that the results of an instrument are consistent throughout time (Berchtold, 2016). The stability of the CTI total score and construct scales was determined by 73 college students and 48 students in Grades 11 and 12 completing the CTI twice over a 4-week period.

Four-week test-retest stability coefficients for the CTI total score was (r = .86) among the college student sample indicated minimal change in CTI responses over the 4-week period. The stability coefficients for the construct scales ranged from .82 to .74. The coefficients for the CTI total score were r = 69 among the high school sample, and the construct scales ranged from .72 to .52. These results demonstrate that the CTI is a reliable instrument (Sampson et al., 1999). As noted in the literature (Galles et al., 2013; Kleinman et al., 2004; Paivandy et al., 2008; Reardon et al., 2013; Wright et al., 2000), the CTI has been used in various studies to show that the evaluation of negative thoughts can be a foundation that aids the understanding of career problems and career decision-making.

The Risky, Impulsive, and Self-Destructive Behavior Questionnaire

The RISQ is a 38-item self-report questionnaire composed of a total score that measures one's general tendencies to engage in risky and self-destructive behaviors. The RISQ has eight domain-specific factors measuring drug behaviors, aggression, self-harm, gambling, risky sexual

behavior, heavy alcohol use, impulsive eating, and reckless driving/spending. For each item, participants are asked to report the following: (a) “How many times total have you done this in your life?” (b) “How many times have you done this in the past month?” (c) “How old were you the first time?” and (d) “Did it ever cause you any problems, such as going to the hospital, legal trouble, problems at work, with family or friends.” To reduce skewness, RISQ responses can be grouped into five bins that encompass the range of possible responses at the high end of the distribution: 0 times, 1–10 times, 11–50 times, 51–100 times, and > 100 times (Sadeh & Baskin-Sommers, 2017).

The RISQ also provides measures of the affective context that motivates an individual to engage in risky or impulsive behavior. On the RISQ, participants used a 5-point Likert-type scale ranging from 0 (strongly disagree) to 4 (strongly agree) to determine their level of agreement with the following for each behavior endorsed: (e) “I do this behavior to stop feeling upset, distressed, or overwhelmed” and (f) “I do this behavior to feel excitement, to get a thrill, or to feel pleasure.” The avoidance scale includes negative emotions and avoidance motivational impulses. The approach scale includes positive basic emotions and approach motivational impulses.

The RISQ was standardized according to data collected from three population samples. A community sample of individuals between the ages of 18 and 66 years ($N = 183$). Of this sample, 60% were men and the remaining 40% were women. In addition, 58% were white, 32% were Black/African American, 5% were of mixed race, and 5% were Asian. In terms of employment, 56% of the participants were employed full time or part time, 36% were unemployed, 2% were receiving disability-related income, and 2% were retired. Finally, in terms of education, 32% of the community sample had earned a high school diploma, GED, or less; 50% had obtained some

vocational training, completed some college, or earned a Bachelor's degree; and 18% had some graduate school education or a graduate degree.

The student sample consisted of individuals between the ages of 18 to 55 years (n = 259), with 28% of the students being men and 72% being women. In terms of race, 64% of the participants were White, 16% were Asian, 9% were Black/African American, 12% were of mixed race, < 1% were American Indian, and < 1% were Native Hawaiian/Pacific Islander. In terms of education, 15% of the student sample had earned a high school diploma, GED, or lower credential; 56% had completed some college or earned a Bachelor's degree; and 29% of the sample had some graduate school education or had earned a graduate degree.

The military veteran sample consisted of individuals aged 21 to 51 years (n = 63), with 87% of the participants being men and 13% being women. In terms of race, 76% were White, 17% were Black/African American, 5% were of mixed race, and 2% were Asian. In terms of employment, 45% of the participants were employed either full time or part time, 25% were receiving disability-related income, 24% were unemployed, and 3% were either retired or full-time students. Finally, in terms of education, 22% of these individuals had earned a high school diploma, GED, or less; 56% had some vocational training, some college, or a Bachelor's degree; and 22% had completed some graduate school or earned a graduate degree.

Construct validity was determined by the participants completing other self-report measures of risky and self-destructive behaviors. The community and student participants completed the DOSPERT (Domain-Specific Risk-Taking) Scale (Blais & Weber, 2006), which is a 90-item measure of 30 risk-taking behaviors in several domains (i.e., financial decisions, health/safety, recreational, ethical, social) to assess the likelihood of one's engagement in risky behavior (total score α = 87). The community and student samples also completed the Michigan

Assessment-Screening Test (Westermeyer et al., 2004) for alcohol and drugs, which measures the consequences of alcohol and drug use (α = .92). Veteran participants completed the Mini International Neuropsychiatric Interview Suicide Scale (Roaldset et al., 2012), a 7-item questionnaire used to assess one's lifetime history of suicidal thoughts and behaviors (α = .90). Those in the veteran sample also completed the South Oaks Gambling Screen (Lesieur & Blume, 1987), which measures participants' lifetime engagement in gambling activities (α = .84). The veteran sample completed the 3-factor eating questionnaire (Stunkard & Messick, 1985), which assessed their thoughts and behaviors related to uncontrolled eating (α = .84) and emotional eating (α = .79).

The correlations of the RISQ with other self-reported measures of risky and self-destructive behaviors were correlated with the reported likelihood of future risk-taking (DOSPERT); it was also associated with drug- and alcohol-related problems (Michigan Assessment-Screening Test) and suicidal behavior (Mini-International Neuropsychiatric Interview; *r* = .34 to .39). The RISQ's self-harm measure was correlated with the MINI Suicide Scale (*r* = .84). The RISQ's gambling measure was correlated with previous gambling behavior on the South Oaks Gambling Screen (*r* = .65). The RISQ's heavy alcohol use portion was correlated with drug and alcohol problems on the Michigan Assessment-Screening Test (*r* = .33).

According to results of the data upon which the RISQ was standardized, the internal reliability of the RISQ's total score was α = .92; the reliability for each of the factors was .73 to .92). The goal of the initial RISQ study was to examine the psychometric properties and utility of a new measure designed to survey and quantify a range of risky, self-destructive, and impulsive behaviors. Results of this initial study support the validity of the RISQ as a psychometric assessment tool that can be used to examine risky and self-destructive behaviors.

Study Procedures

After obtaining approval from Auburn University's Institutional Review Board (IRB) (Appendix C), the CTI and RISQ were administered to students participating in the study during class time. Participants were given the opportunity to contact the researcher if they needed more information. The following steps were followed: (1) The researcher arrive to the classroom at the scheduled day and time to administer the assessments. The researcher was introduced to participants and given the opportunity to explain the next steps. (2) The data were collected from the students, and both surveys were completed in class. (3) The researcher explained the purpose of the study and the data collection process. (4) Next, the researcher gave each participant a folder, which contained an informed consent form, a CTI protocol form, a RISQ protocol form, and a demographic sheet to collect data about the participant's age, race, and gender. The informed consent document was read aloud to ensure that individuals understood everything.

(5) After this, participants were allowed to check the box either allowing or not allowing their data to be used in the study, asked to sign this document, and asked to place the informed consent form back into the folder. (6) Participants were asked to complete the demographic sheet, which was read aloud to ensure that each person had full understanding. (7) After this, participants were asked to remove the CTI protocol form; the instructions from the form were read aloud, and emphasis was placed on the fact that there were no "right" answers. (8) Upon completion, participants were asked to write their names on their paper and place the forms back in their folders.

(9) Once the CTI was completed, participants were instructed to reopen their folders, remove the RISQ, and then close their folders. (10) Instructions and information about the RISQ were then read aloud. Upon completion of the RISQ, the activity had been completed.

(11) Materials were then collected and placed in a secure office at the University. After this, relationships were analyzed via a Spearman's Rho correlation, a method that allowed the researcher to obtain the data that addressed the study hypotheses.

CHAPTER 4: RESULTS

In the current study, risky behaviors in which individuals engage in during emerging adulthood are explored. As Arnett (2000) described, emerging adulthood refers to the period when individuals' experiences and development during the ages of 18 and 29 years. College students participated in this correlational study, submitting responses via (1) the Risky, Impulsive, and Self-Destructive Behavior Questionnaire (RISQ) (Appendix B) and the Career Thoughts Inventory (CTI) (Appendix A). According to Creswell (2014), a correlation study involves the examination of the extent of relationships among variables. In addition, participants completed a demographic data sheet to provide basic details about the sample participants.

Demographic Details of the Sample

Study participants submitted details about their demographic characteristics via a sheet included in the folders that held the RISQ and CTI responses. Demographic data are presented in Table 1. Participants were asked to indicate whether or not they were registered to receive services from the University's Office of Accessibility in addition to their racial identification, sex, and student classification. Based on the data collected from study participants ($N = 151$), 100% of the sample answered the question regarding receiving or not receiving service from the Office of Accessibility.

Of the participants, 90% reported that they did not receiving services, and 10% reported that they did receive services. Study participants were 27% African American; 4% Hispanic, Latina/o, and Latinx; 1% Native American; 3% Asian, Asian American, Pacific Islander, or Desi; and 66% white. In addition, 28% of the participants identified as male, 71% identified as female, and 1% identified as "other." In terms of student classification, 11% were freshman, 34% were sophomores, 21% were juniors, and 35% of the students were seniors.

Table 1

Sample Demographics and Details (*N* = 151)

Classification	n
Freshman	16
Sophomore	51
Junior	32
Senior	53
Sex	**n**
Male	43
Female	107
Other	1
Race	**n**
African American	41
Hispanic or Latin(a/o)	6
Native American	1
Asian, Asian American Pacific Islander, Desi	4
White	100
Serviced by Auburn University Office of Accessibility	**n**
Yes	15
No	136

Statistical Analysis and Answering the Research Questions

A correlational analysis was conducted to answer the research questions, starting with the number of times that individuals reportedly engaged in risky behavior throughout their lifetime and their total scores on the CTI. Additionally, participants' engagement in risky behavior due to feeling upset, distressed, or overwhelmed and their engagement in risky behavior due to excitement, thrill, or pleasure along with their engagement in risky behavior for the first time at the age of 18 years or younger and their total score on the CTI were analyzed as to determine the

strength of these relationships. Graphs of all data relevant to the current investigation can be found in Appendix D.

Research Question 1

The first research question was, "Is there a statistically significant association between scores on the CTI and engagement in risky behaviors over the lifetime?" Overall, there is no statistically significant association between scores on the CTI and engagement in risky behavior over the course of a lifetime. A significant association was found for 14 of the 33 questions, and no significant association was found for 19 of the 33 questions. The numbers of items associated with participants' CTI scores and their engagement in risky behaviors are presented in Table 2.

Table 2

Associations between CTI Score and Engagement in Risky Behavior over a Lifetime

	# of Items Significant	# of Items Not Significant
Drug use and related behaviors (n = 8)	4	4
Aggression (n = 5)	0	5
Gambling (n = 4)	1	3
Risky sexual behavior (n = 4)	2	2
Heavy alcohol use (n = 2)	1	1
Self-harm (n = 4)	3	1
Impulsive eating (n = 2)	1	1
Reckless behavior (n = 4)	2	2
Total	14	19

Drug Use and Related Behaviors

Several questions on the CTI were related to drug use and related behaviors: 4, 5, 12, 20, 24, 27, 31, and 34. For CTI question 4, there was no statistically significant association between total CTI score and the number of times a participant used crack throughout his or her lifetime (S = .10, p = .22). For CTI question 5, there was a statistically significant association between total CTI score and the number of times individuals have bought drugs throughout their lifetime (S =

.20, p = .01). For CTI question 12, there was a statistically significant association between total CTI score and the number of times individuals had used hallucinogens, LSD, and mushrooms throughout their lifetime (S = .17, p = .04). For CTI question 20, there was no statistically significant association between total CTI score and the number of times individuals sold drugs throughout their lifetime (S = 0, p = .99).

For CTI question 24, there was no statistically significant association between total CTI score and the number of times individuals used heroin throughout their lifetime (S = –0.05, p = .53). For CTI question 27, there was a statistically significant association between total CTI score and individuals using marijuana throughout the lifetime (S = .17, p = .03). For CTI question 31, there was a statistically significant association between total CTI score and individuals abusing multiple drugs at once throughout their lifetime (S = .23, p = .01). Finally, for CTI question 34, there was no statistically significant association between total CTI score and individuals' abuse of prescription medication throughout their lifetime (S = .15, p = .06.).

Aggression

Several questions on the CTI were related to aggression: 8, 14, 15, 18, and 19. For CTI question 8, there was no statistically significant association between total CTI and individuals getting in a physical fight throughout the lifetime (S = .11, p = .17). For CTI question 14, there was no statistically significant association between total CTI score and individuals attacking someone with a weapon, such as a knife or gun, which is likely due to chance (S = .12, p = .14). For CTI question 15, there was no statistically significant association between total CTI score and individuals punching or hitting someone with a fist or object throughout their lifetime (S = .10, p = .25). For CTI question 18, there was no statistically significant association between total CTI score and individuals threatening to physically hurt someone throughout the course of their

lifetime (S = –.01 P = .93). For CTI question 19, there was no statistically significant association between total CTI score and individuals threatening someone with a weapon, such as a knife or gun, throughout their lifetime (S = .06, p = .48).

Gambling

Several questions on the CTI were related to gambling: 3, 17, 32, and 33. For CTI question 3, there was a statistically significant association between total CTI score and individuals betting on sports, horses, or other animals throughout their lifetime (S = .17, p = .04). For CTI question 17, there was no statistically significant association between total CTI score and individuals losing more money than they could afford while gambling throughout their lifetime (S = .15, p = .07). For CTI question 32, there was no statistically significant association between total CTI score and individuals playing lotteries, card games for money, or going to the casino throughout their lifetime (S = .11, p = .17). For CTI question 33, there was no statistically significant association between total CTI score and illegal gambling (not a part of a legal business, using a bookie) throughout their lifetime (S = .09, p = .29).

Risky Sexual Behavior

Several questions on the CTI were related to risky sexual behavior: 7, 10, 23, and 29. For CTI question 7, there was a statistically significant association between total CTI score and having unprotected sex with someone the participant had just met or didn't know well throughout their lifetime (S = .20, p =.01). For CTI question 10, there was no statistically significant association between total CTI score and having sex for money or drugs throughout their lifetime (S = .05, p = .57). For CTI question 23, there was no statistically significant association between total CTI score and paying for sex throughout their lifetime (S = .03, p =

.69). For CTI question 29, there was a statistically significant association between total CTI score and being in two or more sexual relationships at the same time ($S = .17$, $p = .03$).

Heavy Alcohol Use

Two questions on the CTI, 11 and 22, were related to heavy alcohol use. For CTI question 11, there was a statistically significant association between total CTI score and individuals drinking alcohol until they blacked out or passed out throughout their lifetime ($S = .22$, $p = .01$). For CTI question 22, there was no statistically significant association between total CTI score and drinking five or more alcoholic drinks in three hours or less throughout the lifetime ($S = .11$, $p = .19$).

Self-Harm

Several questions on the CTI were related to self-harm: 9, 16, 26, and 36. For CTI question 9, there was a statistically significant association between total CTI score and thoughts of killing oneself throughout the lifetime ($S = .21$, $p = .01$). For CTI question 16, there was a statistically significant association between total CTI score and cutting, burning, or hurting oneself on purpose without trying to die throughout their lifetime ($S = .22$, $p = .01$). For CTI question 26, there was no strong association between total CTI score and trying to kill oneself throughout the lifetime ($S = .02$, $p = .81$). For CTI question 36, there was a statistically significant association between total CTI score and an individual having a plans to kill himself or herself throughout the lifetime ($S = .21$, $p = .01$).

Impulsive Eating

Two questions on the CTI, 28 and 35, were related to impulsive eating. For CTI question 28, there was a statistically significant association between total CTI score and having difficulty stopping eating throughout the lifetime ($S = .18$, $p = .03$). For CTI question 35, there was no

statistically significant association between total CTI score and eating lots of food when not hungry throughout the lifetime (S = –.04, p = .66).

Reckless Behavior

Several questions on the CTI were related to reckless behavior: 2, 6, 30, and 37. For CTI question 2, there was no statistically significant association between total CTI score and driving at a speed of 30 or more miles per hour over the speed limit throughout the lifetime (S = .15, p = .06). For CTI question 6, there was a statistically significant association between total CTI score and impulsively buying things that were not needed and would not be used throughout the lifetime (S = .26, p <= .01). For CTI question 30, there was a statistically significant association between total CTI score and individuals buying expensive items that they could not afford at the "spur of the moment" throughout lifetime (S = .21, p = .01). For CTI question 37, there was no statistically significant association between total CTI score and individuals running red lights or ignoring stop signs throughout their lifetime (S = .12, p = .13).

Research Question 2

The second research question guiding this inquiry was, "Is there a statistically significant association between scores on the CTI and engagement in risky behaviors due to feeling excitement, thrill, pleasure?" Overall, there was no statistically significant association between scores on the CTI and engagement in risky behavior due to individuals' feelings of excitement, thrill, and pleasure. Of the 33 questions, 3 questions had a significant association, and 28 questions did not have a significant association. Two questions were not applicable due to the limited amount of data. The numbers of items associated with participants' CTI scores and their engagement in risky behaviors as related to feeling excited, seeking a thrill, or seeking pleasure are presented in Table 3.

Table 3

Associations between CTI Score and Risky Behavior due to Excitement, Thrill, or Pleasure

	# of Items Significant	# of Items Not Significant
Drug use and related behaviors* (n = 8)	0	7
Aggression (n = 5)	0	5
Gambling (n = 4)	0	4
Risky sexual behavior* (n = 4)	1	2
Heavy alcohol use (n = 2)	0	2
Self-harm (n = 4)	0	4
Impulsive eating (n = 2)	0	2
Reckless behavior (n = 4)	2	2
Total	3	28

Note. One item was not applicable due to limited data.

Drug Use and Related Behaviors

Several questions on the CTI were related to drug use and related behaviors: 4, 5, 12, 20, 24, 27, 31, and 34. For CTI question 4, there was no statistically significant association between total CTI score and how many times crack has been used due to feeling excitement, thrill, pleasure (S = .35, p = .12). For CTI question 5, there was no statistically significant association between total CTI score and the number of times individuals have bought drugs for excitement, thrill, or pleasure (S = .11, p = .46). For CTI question 12, there was no statistically significant association between total CTI score and how many times individuals used hallucinogens, LSD, and mushrooms due to feeling excitement, thrill, pleasure (S = –.20, p = .32). For CTI question 20, there was no statistically significant association total CTI score and individuals who sold drugs due to feelings of excitement, thrill, or pleasure (S = .53, p = .22). For CTI question 24, there was not enough data.

For CTI question 27, there was no statistically significant association between total CTI score and individuals using marijuana due to feeling excitement, thrill, and pleasure (S = .03, p = .80). For CTI question 31, there was no statistically significant association between total CTI

score and individuals abusing multiple drugs at once due to feelings of excitement, thrill, and pleasure ($S = –.22$, $p = .32$). For CTI question 34, there was no statistically significant association between total CTI score and individuals' abuse of prescription medication due to feelings of excitement, thrill, and pleasure ($S = .10$, $p = .73$).

Aggression

Several questions on the CTI were related to aggression: 8, 14, 15, 18, and 19. For CTI question 8, there was no statistically significant association between total CTI score and individuals getting in physical fights due to feelings of excitement, thrill, or pleasure ($S = –.02$, $p = .89$). For CTI question 14, there was no statistically significant association in total CTI score and individuals attacking someone with a weapon, such as a knife or gun, due to feelings of excitement, thrill, or pleasure ($S = –.77$, $p = .23$). For CTI question 15, there was no strong association between total CTI score and individuals punching or hitting someone with a fist or object due to feelings of excitement, thrill, or pleasure ($S = –.07$, $p = .65$). For CTI question 18, there was no statistically significant association between total CTI score and individuals threatening to physically hurt someone due to feelings of excitement, thrill, or pleasure ($S = .19$, $p = .29$). For CTI question 19, there was no statistically significant association between total CTI score and individuals threatening others with a weapon, such as a knife or gun, due to feelings of excitement, thrill, and pleasure ($S = .50$, $p = 1.00$)

Gambling

Several questions on the CTI were related to gambling: 3, 17, 32, and 33. For CTI question 3, there was no statistically significant association between total CTI score and individuals betting on sports, horses, or other animals due to feelings of excitement, thrill, and pleasure ($S = 0.08$, $p = .68$). For CTI question 17, there was no statistically significant

association between total CTI score and individuals losing more money than they could afford when gambling due to feelings of excitement, thrill, or pleasure (S = –.15, p = .69). For CTI question 32, there was no statistically significant association between total CTI score and individuals playing lotteries, card games for money, or going to the casino due to feelings of excitement, thrill, or pleasure (S = -.06, p = .72). For CTI question 33, there was no statistically significant association between total CTI score and illegal gambling (not a part of a legal business, using a bookie) due to feelings of excitement, thrill, and pleasure (S = –.19, p = .62).

Risky Sexual Behavior

Several questions on the CTI were related to risky sexual behaviors: 7, 10, 23, and 29. For CTI question 7, there was no statistically significant association between total CTI score and individuals having unprotected sex with people they just met or didn't know well due to feelings of excitement, thrill, and pleasure (S = .24, p = .08). For CTI question 10, there was no statistically significant association between total CTI score and individuals having sex for money or drugs due to feelings of excitement, thrill, and pleasure (S = –.73, p = .17). For CTI question 23, there was not enough data. For CTI question 29, there was a statistically significant association between total CTI score and being in two or more sexual relationships at the same time due to feelings of excitement, thrill, and pleasure (S = .57, p = .01).

Heavy Alcohol Use

Two questions on the CTI were related to heavy alcohol use, 11 and 22. For CTI question 11, there was no statistically significant association between total CTI score and individuals drinking alcohol until they blacked out or passed out due to feelings of excitement, thrill, and pleasure (S = .15, p = .19). For CTI question 22, there was no statistically significant association

between total CTI score and being in two or more sexual relationships at the same time due to feelings of excitement, thrill, and pleasure ($S = – 0.06$, $p = .72$).

Self-Harm

Several questions on the CTI were related to self-harm: 9, 16, 26, and 36. For CTI question 9, there was no statistically significant association between total CTI score and thoughts about killing oneself due to feelings of excitement, thrill, and pleasure ($S = .06$, $p = .63$). For CTI question 16, there was no statistically significant association between total CTI score and cutting, burning, or hurting oneself on purpose due to feelings of excitement, thrill, and pleasure ($S = .02$, $p = .47$). For CTI question 26, there was no strong association between total CTI score and trying to kill oneself due to feelings of excitement, thrill, and pleasure ($S = .02$, $p = .95$). For CTI question 36, there was no statistically significant association between total CTI score and an individual having a plan to kill himself or herself due to feelings of excitement, thrill, and pleasure ($S = –.11$, $p = .58$).

Impulsive Eating

Two questions on the CTI were related to impulsive eating, 28 and 35. For CTI question 28, there was no statistically significant association between total CTI score and individuals having difficulty stopping eating due to feelings of excitement, thrill, and pleasure ($S = .14$, $p = .43$). For CTI question 35, there was no statistically significant association between total CTI score and eating a lot of food when not hungry due to feelings of excitement, thrill, and pleasure ($S = .25$, $p = .06$).

Reckless Behavior

There were several questions on the CTI related to reckless behavior: 2, 6, 30, and 37. For CTI question 2, there was a statistically significant association between total CTI score and

driving 30 or more miles per hour over the speed limit due to feelings of excitement, thrill, and pleasure ($S = .29$, $p = < .01$). For CTI question 6, there was a statistically significant association between total CTI score and individuals impulsively buying things they did not need and would not use due to feelings of excitement, thrill, and pleasure ($S = .18$, $p = .05$). For CTI question 30, there was not statistically significant association between total CTI and buying expensive items individuals could not afford on the spur of the moment due to feeling excitement, thrill, and pleasure ($S = .19$, $p = .25$). For CTI question 37, there was no statistically significant association between total CTI score and individuals running red lights or ignoring stop signs due to feelings of excitement, thrill, and pleasure ($S = .14$, $p = .20$).

Research Question 3

The third research question guiding the current inquiry was, "Is there a statistically significant association between scores on the CTI and engagement in risky behaviors due to feeling upset, distressed, or overwhelmed?" Overall, there is not a statistically significant association between scores on the CTI and engagement in risky behavior due to feeling upset, distressed, or overwhelmed? Out of the 33 questions, 10 questions had a significant association, and 21 questions did not have a significant association, 2 questions were not applicable due to not enough data. The numbers of items associated with participants' CTI scores and their engagement in risky behaviors due to feeling upset, distressed, or overwhelmed are presented in Table 4.

Table 4

Associations between CTI Score and Risky Behavior due to Feeling Upset, Distressed, or Overwhelmed

	# of Items Significant	# of Items Not Significant
Drug use and related behaviors* (n = 8)	4	3
Aggression (n = 5)	1	5
Gambling (n = 4)	0	4
Risky sexual behavior* (n = 4)	1	2
Heavy alcohol use (n = 2)	2	0
Self-harm (n = 4)	0	4
Impulsive eating (n = 2)	0	2
Reckless behavior (n = 4)	2	2
Total	10	21

Note. One item was not applicable due to limited data.

Drug Behaviors

Several questions on the CTI were related to drugs and related behaviors: 4, 5, 12, 20, 24, 27, 31, and 34. For CTI question 4, there was a statistically significant association between total CTI score and the number of times crack had been used due to upset, distressed, or overwhelmed (S = .55, p = .01). For CTI question 5, there was no statistically significant association between total CTI score and the number of times individuals had bought drugs due to feeling upset, distressed, or overwhelmed (S = .26, p = .07). For CTI question 12, there was a statistically significant association between total CTI score and the number of times individuals used hallucinogens, LSD, and mushrooms due to feeling upset, distressed, or overwhelmed (S = .43, p = .02). For CTI question 20, there was statistically significant association between total CTI score and individuals who sold drugs due to feeling upset, distressed, or overwhelmed (S = –.87, p = .01).

For CTI question 24, there was not enough data. For CTI question 27, there was a statistically significant association between total CTI score and individuals using marijuana due

to feeling upset, distressed, or overwhelmed ($S = .25$, $p = .02$). For CTI question 31, there was no statistically significant association between total CTI score and individuals abusing multiple drugs at once due to feeling upset, distressed, or overwhelmed ($S = .23$, $p = .30$). For CTI question 34, there was no statistically significant association between total CTI score and individuals abusing prescription medication due to feeling upset, distressed, or overwhelmed ($S = –.45$, $p = .11$).

Aggression

Several questions on the CTI were related to aggression: 8, 14, 15, 18, and 19. For CTI question 8, there was no statistically significant association between total CTI score and individuals getting into physical fights due to feeling upset, distressed, or overwhelmed ($S = .04$, $p = .80$). For CTI question 14, there was a statistically significant association between total CTI score and individuals attacking someone with a weapon, such as a knife or gun, due to feeling upset, distressed, or overwhelmed *(*$S = –.95$, $p = .05$). For CTI question 15, there was no strong association between total CTI score and individuals punching or hitting someone with a fist or object due to feeling upset, distressed, or overwhelmed ($S = –.17$, $p = .26$). For CTI question 18, there was no statistically significant association between total CTI score and individuals threatening to physically hurt someone due to feeling upset, distressed, or overwhelmed ($S = .24$, $p = .17$). For CTI question 19, there was no statistically significant association between total CTI score and individuals threatening someone with a weapon, such as a knife or gun, due to feeling upset, distressed, or overwhelmed ($S = .50$, $p = 1.00$).

Gambling

Several questions on the CTI were related to gambling: 3, 17, 32, and 33. For CTI question 3, there was no statistically significant association between total CTI score and

individuals betting on sports, horses, or other animals due to feeling upset, distressed, or overwhelmed (S = –.01, p = .96). For CTI question 17, there was no statistically significant association between total CTI score and individuals losing more money than they could afford while gambling due to feeling upset, distressed, or overwhelmed (S = .29, p = .41). For CTI question 32, there was no statistically significant association between total CTI score and individuals playing lotteries, card games for money, or going to the casino due to feeling upset, distressed, or overwhelmed (S = .10, p = .54). For CTI question 33, there was no statistically significant association between total CTI score and illegal gambling (not a part of a legal business, using a bookie) due to feeling upset, distressed, or overwhelmed (S = .16, p = .68).

Risky Sexual Behavior

Several questions on the CTI were related to risky sexual behavior: 7, 10, 23, and 29. For CTI question 7, there was no statistically significant association between total CTI score and individuals having unprotected sex with someone they had just met or didn't know well due to feeling upset, distressed, or overwhelmed (S = .13, p = .34). For CTI question 10, there was no statistically significant association between total CTI score and individuals having sex for money and drugs due to feeling upset, distressed, or overwhelmed (S = –.37, p = .54). For CTI question 23, there was not enough data. For CTI question 29, there was a statistically significant association between total CTI score and an individual being in two or more sexual relationships at the same time due to feeling upset, distressed, or overwhelmed (S = .39, p = .05).

Heavy Alcohol Use

Two items on the CTI, 11 and 22, were related to heavy alcohol use. For CTI question 11, there was a statistically significant association between total CTI score and individuals drinking alcohol until they blacked out or passed out due to feeling upset, distressed, or

overwhelmed ($S = .32$, $p = < .01$.). For CTI question 22, there was a statistically significant association between total CTI score and individuals drinking five or more alcoholic in three hours or less due to feeling upset, distressed, or overwhelmed ($S = .22$, $p = .02$).

Self-Harm

Several questions on the CTI were related to self-harm: 9, 16, 26, and 36. For CTI question 9, there was no statistically significant association between total CTI score and thoughts about killing oneself due to feeling upset, distressed, or overwhelmed ($S = .14$, $p = .27$). For CTI question 16, there was no statistically significant association between total CTI score and cutting, burning, or hurting oneself on purpose due to feeling upset, distressed, or overwhelmed ($S = .14$, $p = .47$). For CTI question 26, there was no strong association between total CTI score and trying to kill oneself due to feeling upset, distressed, or overwhelmed ($S = .36$, $p = .17$). For CTI question 36, there was no statistically significant association between total CTI score and individuals having plans to kill themselves due to feeling upset, distressed, or overwhelmed ($S = .05$, $p = .79$).

Impulsive Eating

Two of the questions on the CTI, 28 and 35, were related to impulsive eating. For CTI question 28, there was no statistically significant association between total CTI score and individuals struggling to stop eating due to feeling upset, distressed, or overwhelmed ($S = .01$, $p = .97$). For CTI question 35, there was no statistically significant association between total CTI score and individuals eating a lot of food when they are not hungry due to feeling upset, distressed, or overwhelmed ($S = .10$, $p = .44$).

Reckless Behaviors

Several questions on the CTI were related to reckless behaviors: 2, 6, 30, and 37. For CTI question 2, there was a statistically significant association between total CTI score and individuals driving 30 or more miles per hour over the speed limit due to the stress of feeling upset, distressed, or overwhelmed ($S = .28$, $p = < .01$). For CTI question 6, there was a statistically significant association between total CTI score and individuals impulsively buying stuff that they did not need and would not use due to feeling upset, distressed, or overwhelmed ($S = .30$, $p = < 0.01$). For CTI question 30, there was no statistically significant association between total CTI score and individuals buying expensive items they could not afford at the "spur of the moment" due to feeling upset, distressed, or overwhelmed ($S = .23$, $p = .16$). For CTI question 37, there was no statistically significant association between total CTI score and individuals running red lights or ignoring stop signs due to feeling upset, distressed, or overwhelmed ($S = .16$, $p = .16$).

Research Question 4

The fourth research question guiding this inquiry was, "Is there a statistically significant association between scores on CTI and engaging in risky behavior for the first time at the age of 18 or younger?" Overall, there is no statistically significant association between scores on the CTI and engagement in risky behavior for those between the ages of 18 years or younger? Of the 33 questions, 3 questions had a significant association, and 29 questions did not have a significant association, and 1 question was not applicable due to limited data. The numbers of items associated with participants' CTI scores and their engagement in risky behaviors for the first time at 18 years of age or younger are presented in Table 5.

Table 5

Associations between CTI Score and Engagement in Risky Behavior before 18 Years of Age

	# of Items Significant	# of Items Not Significant
Drug use and related behaviors (*n* = 8)	0	8
Aggression (*n* = 5)	1	3
Gambling (*n* = 4)	0	4
Risky sexual behavior* (*n* = 4)	0	3
Heavy alcohol use (*n* = 2)	0	2
Self-harm (*n* = 4)	0	4
Impulsive eating (*n* = 2)	1	1
Reckless behavior (*n* = 4)	1	3
Total	3	29

Note. One item was not applicable due to limited data.

Several questions on the CTI were related to drug behaviors: 4, 5, 12, 20, 24, 27, 31, and 34. For CTI question 4, there was no statistically significant association between scores on the CTI and engaging in crack or cocaine for the first time at the age of 18 years or younger ($S = –.24$, $p = .29$). For CTI question 5, there was no statistically significant association between scores on the CTI and buying drugs for the first time at the age of 18 years or younger ($S = –.16$, $p = .28$). For CTI question 12, there was no statistically significant association between scores on CTI and using hallucinogens, LSD, and mushrooms for the first time at the age of 18 or younger ($S = –.02$, $p = .90$).

For CTI question 20, there was no statistically significant association between CTI scores and using heroin for the first time at the age of 18 years or younger ($S = .87$, $p = .33$). For CTI question 24, there was no statistically significant association between CTI scores and selling drugs for the first time at the age of 18 years or younger ($S = .50$, $p = .25$). For CTI question 27, there was no statistically significant association between CTI scores and using marijuana for the first time at the age of 18 years or younger ($S = –.04$, $p = .75$). For CTI question 31, there was no statistically significant association between CTI scores and individuals' abuse of multiple drugs

at once for the first time at the age of 18 years or younger (S = .03, p = .89). For CTI question 34, there was no statistically significant association between CTI scores and individuals' abuse of prescription medication for the first time at the age of 18 years or younger (S = .15, p = .61).

Aggression

Several questions on the CTI were related to aggression: 8, 14, 15,18, and 19. For CTI question 8, there was no statistically significant association between scores on the CTI and individuals getting into physical fights for the first time at the age of 18 years or younger (S = –.04, p = .83). For CTI question 14, there was a statistically significant association between CTI scores and individuals attacking someone with a weapon, such as a knife or gun, for the first time at the age of 18 years or younger (S = –.95, p = 0.05). For CTI question 15, there was no statistically significant association between CTI scores and individuals punching or hitting someone with a fist or object (S = .06, p = .68). For CTI question 18, there was no statistically significant association between CTI scores and individuals threatening to physically hurt someone for the first time at the age of 18 years or younger (S = 0.09, p = .59). For CTI question 19, there was no statistically significant association between CTI scores and individuals threatening someone with a weapon, such as a knife or gun, for the first time at the age of 18 years or younger (S = .50, p = 1.00).

Gambling

Several questions on the CTI were related to gambling: 3, 17, 32, and 33. For CTI question 3, there was no statistically significant association between CTI scores and individuals betting on sports, horses, or other animals at the age of 18 years or younger (S = –.30, p = .11). For CTI question 17, there was no statistically significant association between total CTI score and individuals losing more money than they could afford while gambling at the age of 18 years

or younger (S = –.08, p = .83). For CTI question 32, there was no statistically significant association between total CTI score and individuals playing lotteries, card games for money, or going to the casino at the age of 18 years or younger (S = –.26, p = .11). For CTI question 33, there was no statistically significant association between total CTI score and illegal gambling (not a part of a legal business, using a bookie) at the age of 18 years or younger (S = –.17, p = .66).

Risky Sexual Behavior

Several questions on the CTI were related to risky sexual behavior: 7, 10, 23, and 29. For CTI question 7, there was no statistically significant association between total CTI score and having unprotected sex with someone you just met or didn't know well at the age of 18 years or younger (S = .02, p = .87). For CTI question 10, there was no statistically significant association between total CTI score and having sex for money or drugs at the age of 18 years or younger (S = –.19, p = .76). For CTI question 23, there was not enough data. For CTI question 29, there was a statistically significant association between total CTI score and being in two or more sexual relationships at the same time at the age of 18 years or younger (S = –.04, p = .83).

Heavy Alcohol Use

Two questions on the CTI, 11 and 22, were related to heavy alcohol use. For CTI question 11, there was a statistically significant association between total CTI score and individuals drinking alcohol until blacked out or passed out at the age of 18 years or younger (S = .22, p = .01). For CTI question 22, there was no statistically significant association between total CTI score and individuals drinking five or more alcoholic drinks in three hours or less at the age of 18 years or younger (S = .11, p = .19).

Self-Harm

Several questions on the CTI were related to self-harm: 9, 16, 26, and 36. For CTI question 9, there was no statistically significant association between total CTI score and thoughts about killing oneself at the age of 18 years or younger ($S = .21$, $p = .10$). For CTI question 16, there was no statistically significant association between total CTI score and cutting, burning, or hurting oneself on purpose at the age of 18 years or younger ($S = .12$, $p = .57$). For CTI question 26, there was no strong association between total CTI score and trying to kill oneself at the age of 18 years or younger ($S = .16$, $p = .55$). For CTI question 36, there was no statistically significant association between total CTI score and having a plan to kill oneself at the age of 18 years or younger ($S = .06$, $p = .77$).

Impulsive Eating

Two of the questions on the CTI, 28 and 35, were related to impulsive eating. For CTI question 28, there was a statistically significant association between total CTI score and individuals struggling to stop eating at the age of 18 years or younger ($S = –.44$, $p = .01$). For CTI question 35, there was no statistically significant association between total CTI score and individuals eating excessively even when not hungry at the age of 18 years or younger ($S = –.02$, $p = .91$).

Reckless Behavior

Several questions on the CTI were related to reckless behavior: 2, 6, 30, and 37. For CTI question 2, there was no statistically significant association between total CTI score and driving 30 or more miles per hour over the speed limit at the age of 18 years or younger ($S = –.03$, $p = .75$). For CTI question 6, there was a statistically significant association between total CTI score and individuals impulsively buying things they did not need at the age of 18 years or younger

($S = –.23$, $p = .01$). For CTI question 30, there was a statistically significant association between total CTI score and individuals buying expensive items that they could not afford at the "spur of the moment" throughout their lifetime ($S = –.01$, $p = .98$). For CTI question 37, there was statistically significant association between total CTI score and running red lights or ignoring stop signs throughout the lifetime ($S = .07$, $p = .52$).

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

The purpose of the current study was to investigate whether or not there is a relationship between different factors related to emerging adults' engagement in risky behavior. This study addresses if engagement in risky behavior is influenced by individuals feeling upset, distressed, or overwhelmed or perhaps feelings of excitement, thrill, or pleasure. Deepening our understanding of the factors that influence risky behavior among emerging adults can help those who support emerging adults better understand themselves and make smoother transitions into adulthood.

A convenience sampling strategy was utilized to collect data in the current study. Two separate instruments, the Career Thoughts Inventory (CTI) and the Risky, Impulsive, and Self-Destructive Behavior Questionnaire (RISQ), were administered to 151 students at Auburn University that were at least 19 years of age or older. The CTI is used to examines a person's level of dysfunctional career thinking (negative) or positive thoughts about work. The CTI provides an overall score and scores on three subscales (i.e., decision-making confusion, commitment anxiety, external conflict). These scores were derived as raw scores and were transformed into standard scores and percentiles (Sampson et al., 1996). The RISQ is a 38-item self-report questionnaire that measures risky, impulsive, and self-destructive behaviors across 8 different domains (i.e., aggression, self-harm, gambling, impulsive spending/driving, impulsive eating, risky sex, illegal behavior, alcohol use) (Sadeh & Sommers, 2017). The range of possible responses are categorized into response bins: 0, 1 to 10, 11 to 50, 51 to 100, > 100 (Sadeh & Sommers, 2017).

The Research Questions and Hypotheses

Four research questions and corresponding hypotheses guided the current investigation. The data to answer the four research questions were statistically analyzed utilizing bivariate correlation procedures. The first research question was related to the extent to which there was an association between an individual engaging in risky behavior across his or her lifetime and the individual's overall CTI score. The null hypothesis was stated as follows:

> Hø1: Overall, there is not a statistically significant association between engaging in risky behavior across the lifetime and overall score on the CTI.

Of the 33 questions, 19 had no statistically significant association, and there was a statistically significant association for the remaining 14.

The second research question was designed to examine the association between individuals engaging in risky behavior due to feelings of excitement, thrill, and pleasure and their overall CTI score. The null hypothesis was stated as follows:

> Hø2: Overall, there is not a statistically significant association between engaging in risky behavior due to feeling excitement, thrill, and pleasure and overall CTI score.

Of the 33 questions, 28 did not have a significant association, 3 had a significant association, and 2 were not applicable due limited data.

The third research question was designed to examine the association between individuals engaging in risky behavior due to feeling upset, distressed, or overwhelmed and overall CTI score. The null hypothesis was stated as follows:

> Hø3: Overall, there is not a statistically significant association between engaging in risky behavior due to feeling upset, distressed, or overwhelmed and overall CTI score.

Of the 33 questions, 21 did not have a significant association, 10 had a significant association, and 2 were not applicable due to limited data.

The fourth research question sought to examine the association between individuals engaging in risky behavior at the age of 18 years or younger and overall CTI score. The null hypothesis was stated as follows:

> Hø4: Overall, there is not a statistically significant association between engaging in risky behavior at the age of 18 or younger and overall CTI score.

Of 33 questions, 29 did not have a significant association, 3 had a significant association, and 1 was not applicable due to limited data.

Discussion and Interpretation of Results

The purpose of this study was to examine the association among the dependent variables (i.e., RISQ data, overall CTI score) and independent variables (i.e., getting service from the University's Office of Accessibility, race, sex, classification). Descriptive analyses were conducted on the demographic data, and inferential analyses were conducted for the four research questions. The demographic data reported by participants provided a rich description of the sample.

Office of Accessibility Services

The first category of demographic data collected in the current study was the participants' receiving or not receiving services from the Office of Accessibility, and all participants (N = 151) responded to this item. Only 10% of participants (n = 15) reported that they do receive service from the University's Office of Accessibility. Emerging adulthood can be a period of individuals' self-exploration while they also exhibit autonomy in areas of life that were previously eased by parents, guardians, school structures, and supervision. During emerging adulthood, individuals tend to rely on their own resources in less structured environments, and those with physical, mental, and intellectual disabilities may struggle and experience negative outcomes in education, career development, and social behaviors (Wood et al., 2017). In this

study, data were collected regarding students receiving services from the Office of Accessibility, but participants did not specify their disabilities or the types of accommodations they were receiving.

Race

The next category of demographic information explored was race, and all participants (*N* = 151) responded to this item. Participants' race in this study included African American/Black; Asian, Asian American, Pacific Islander, or Desi; Hispanic, Latina/o, or Latinx; Native American; and White. Of the participants, 27% were African American/Black (*n* = 41); 2% were Asian, Asian American, Pacific Islander, or Desi (*n* = 4); 4% were Hispanic, Latina/o, or Latinx (*n* = 6); 1% were Native American (*n* = 1); and 66% (*n* = 100) were White. These results are significant because as society becomes more diverse, research should reflect the current society. Those conducting research should take accountability and respect the diversity of all human cultures to ensure that all populations reap the benefits of high quality research and societal advancements (Allmark, 2004).

Sex

The next category of demographic information explored was sex, and all participants (*N* = 151) responded to this item. Of the study participants, 28% of the participants identified as male (*n* = 43); 71% identified as female (*n* = 107); and 1% identified as other (*n* = 1). Participants in this study represent the shift in college enrollment by men and women. This information is significant because women comprise almost 60% of the students enrolled in universities and colleges and men just over 40%, according to the National Student Clearinghouse Research Center (as cited in West, 2021).

University Classification

The final category of demographic information explored was participants' university classification, and all participants ($N = 151$) responded to this item. Of the participants, 11% were freshman ($n = 16$); 34% were sophomores ($n = 51$); 21% were juniors ($n = 32$); and 35% were seniors ($n = 53$). This information significant because study participants capture the characteristics of the larger population of emerging adults. Emerging adulthood refers to era of life after adolescence but before adulthood when individuals are between the ages of 18 to 25 years (Arnett, 2006). It was assumed in this study that seniors would engage in less risky behavior or that risky behaviors would somewhat taper off; however, this did not appear true.

Importance of the Findings

Of the eight questions on the CTI related to drugs and associated behaviors, four of them had a statistically significant association with overall CTI score. Individuals who bought drugs, used hallucinogens, LSD, or mushrooms, used marijuana, and abused multiple drugs at once all showed statistically significant associations between CTI scores and engagement in drug behaviors across their lifetimes. This is significant because emerging adults are in the process of establishing their identities and adapting to new social environments. The term "social adoption" refers to the act of changing one's belief, attitudes, or behaviors to match the social norms shared by a group (Duerler et al., 2020). Emerging adults using hallucinogens, mushrooms, LSD, and marijuana could be attempting to adapt to new environments or simply trying to establish their identities. The drug LSD can alter people's social processing, social behavior, interaction, and the brain activity related to the medial prefrontal cortex, which also impacts social behavior (Duerler et al., 2020).

There was a significant association between an individual's use of marijuana and overall CTI score possibly due to the neurodevelopment. Chronic marijuana exposure during adolescence throughout emerging adulthood (from ages 18 to 25years) can result in neurocognitive deficits for individuals once they reach full adulthood (Lisdahl & Price, 2012). Of the risky sexual behavior questions, two of them had statistically significant associations with overall CTI score. Individuals who had unprotected sex with people they had just met or did not know well and those who had simultaneously been in two or more sexual relationships all had statistically significant associations with overall CTI scores. This is important because risky sexual behavior has been connected to individuals having low expectations about their futures in other studies. Having low future expectations—including ideas around graduating, living up to age 35 years, setting goals, making plans, and making commitments—may promote risky sexual behavior (Sipsma et al., 2015).

Emerging adulthood is a time when people explore their identities and seek social acceptance, both of which can have unintended outcomes with irreversible negative consequences. It is essential to acknowledge the ways in which individuals' positive ideas about their futures can contribute to lower levels of engagement in risky sexual behaviors. Paat and Markham (2016) shared that individuals who strongly believe that they will have successful careers in their future are less likely to engage in risky sexual behaviors, as contrary to those with low career aspirations. Results from this study showed that emerging adults with stronger senses of career certainty were more likely to engage in less risky sexual behavior, indicating the possibility that productive career counseling can help emerging adults successfully transition into adulthood.

Of the four questions related to self-harm, three of them had a statistically significant association with overall CTI score. There were statistically significant associations for individuals who thought about killing themselves, who engaged in cutting, burning, or hurting themselves on purpose, or who had plans to kill themselves in terms of their CTI scores and engagement in self-harm over the course of their lifetime. This study is significant because as Gomez et al. (2011) noted, few researchers have examined the cultural context of risky self-harming behaviors that are seen during emerging adulthood.

Starting and graduating from college and securing an entry-level position within a career typically occurs when people are still in the emerging adulthood stage, so a smooth transition from college to career is a societal expectation for college students (Arnett, 1994). Many emerging adults do not have smooth journeys during this "age of instability" (see Chapter 2). This age of instability is time during which people explore options that can have lifelong implications in different areas of life, including but not limited to love, work, and permanent residence (Arnett, 2000).

In addition, this instability can be related to someone's challenges in securing employment after college, inability to gain admission to graduate programs, lack of economic resources to continue school, acceptance of work in the "gig economy," and time spent exploring possible career changes. As emerging adults attempt to successfully transition to adulthood, they may experience interpersonal issues, financial hardships, and failure in meeting their own or societal expectations (Ranta et al., 2020). Emerging adults may also feel like they are missing out on moments in life that are critical to adulthood, like marriage or job stability, both of which can stir pessimism for the future (Arnett, 2016). As emerging adults get increased responsibilities,

they may experience heightened stress, anxiety, depression, and suicidal ideation (Schwartz & Petrova, 2019).

Suicide is the second leading cause of death among young adults (Fernandes et al., 2021). Miron et al. (2019) found that suicide rates for those between the ages of 20 and 24 years have reached their highest point since 2000, rising 57.4% from 2007 to 2018. Emerging adults are also coping with the stress stemming from the global COVID-19 pandemic. According to the Centers for Disease Control and Prevention (CDC; as cited in Czeiler et al., 2020), 1 in 4 young adults (aged 18 to 24 years) has seriously considered suicide due to pandemic-related stress and the pandemic's impact on their social, academic, work, and family life. The results of this study add depth to this literature by highlighting that the absence of positive feelings about future occupations may lead emerging adults to engage in self-harming behavior. These results are significant and congruent with emerging adulthood as an age of identity exploration and an age of instability as there is increased vulnerability for various types of risk behaviors (Arnett, 2000). This includes risky, self-harming behaviors (Kessler et al., 2005).

Of the two questions related to heavy alcohol use, both were statistically significant in association to CTI scores and engagement in risky behavior due to feeling upset, distressed, or overwhelmed. This is significant because it highlights one of the most popular activities in which emerging adults engage in to relieve stress. Of the study participants ($N = 151$), 104 participants (68%) had consumed five or more alcoholic drinks in three hours or less. Heavy drinking in the United States is seen most among emerging adults as compared to all other age groups (Lau-Barraco et al., 2017). In a study of emerging adults (Substance Abuse and Mental Health Services Administration, 2014), it was found that 37.9% of emerging adults had engaged in at least one binge-drinking episode (i.e., having 5 or more drinks) in the past 30 days.

The findings in this study are important because they add depth to the literature regarding the various reasons that emerging adults engage in heavy alcohol use. This study highlights the idea that emerging adult engage in heavy alcohol use due to feelings of being upset, distressed, or overwhelmed. Results from another study (Hall et al., 2016) indicated that emerging adults drink heavily due to drastic changes in their environments and relationships and their attempts to identify their roles in society as they transition into adulthood. According to Yee et al. (2022), emerging adults' mortality rates increased during the pandemic. As more research is conducted, systematic approaches to decrease heavy alcohol use can be implemented in attempts to minimize heavy drinking among emerging adults, which can help with successful transitions.

Of the four questions related to reckless behavior, two of them had a significant association with CTI scores and engagement in risky behavior due to feelings of excitement, thrill, and pleasure. Individuals who drive 30 miles per hour or faster over the speed limit due to feelings of excitement, thrill, and pleasure had a statistically significant association with overall CTI score. Of the 151 participants, 106 participants had driven at these speeds. This is significant because emerging adults tend to engage in risky driving behaviors more than individuals from other age groups (Luk et al., 2017).

In addition to experiencing the elements of emerging adulthood, emerging adults also experience rapid brain development (Paus, 2005). During adolescence, the brain undergoes a process that is not complete until around the age of 25 years (Arian et al., 2013). At this time, the regions of the brain associated with thrill-seeking are more developed than the regions associated with reasonable decision-making and foresight into possible consequences of certain actions (Schwartz & Petrova, 2019). In addition to brain development, emerging adults are more influenced by peers than people in other age groups are. Arnett (2000) noted that emerging

adulthood is one of the most volitional phases of life, a time when individuals explore and discover their identities and worldviews.

As emerging adults shift away from families and are yet to settle into their roles in society, their peers become extremely important influences regarding behaviors and worldviews during adolescence through early adulthood (Brown, 2004). The possible influence that peers can have on emerging adults creates an environment in which reckless behaviors are more likely to occur. Reckless behaviors are also more likely to occur during group activities (Weschler et al., 1995), and younger individuals are more likely than older adults to travel together in vehicles (Vegega & Klitzner, 1989). The presence of young adult passengers in a vehicle increases the crash rates of young adult drivers, and the crash rate increases with young adult passengers present (CDC, 2020). Tefft et al. (2013) found that for 16- and 17-year-old drivers, having one passenger younger than 21 years of age was associated with a 44% greater risk per mile driven of being killed in a crash as compared to having no passengers.

Tefft et al. (2013) also indicated that driving with 2 passengers younger than age 21 years was associated with a doubled risk of being killed in a crash as compared to having no passengers younger than 21 years of age or having no passengers, and having 3 or more passengers younger than 21 years of age was associated with a quadrupled risk of being killed in a crash as compared to having no passengers. One conclusion from this study is that emerging adults traveling with peers can increase the occurrence of car crashes for emerging adults. In addition to factors identified in previous research, results of this study add valuable insight regarding our understanding of the reasons that emerging adults engage in reckless driving.

Results from this study are congruent with previous studies about risky driving and thrill-seeking. Thiessen and Au-Yeung (2001) reported that drivers who scored high on metrics of

sensation-seeking were significantly more likely to engage in dangerous driving behaviors (e.g., speeding) and were more likely to have traffic violations on their records. Other studies (Constantinou et al., 2011; Delhomme et al., 2012; Lonczak et al., 2007) have demonstrated that thrill-seeking is correlated with collisions, traffic citations, and speeding. Bingham et al. (2006) found that students who do well in school tend to engage in reckless driving less frequently than students who are struggle in school.

Conclusions

One of the main conclusions from this study is that there were statistically significant relationships among the dependent variables (i.e., risky behaviors measured by the RISQ, career thoughts measured by CTI) and independent variables (i.e., receiving services from the University's Office of Accessibility, race, sex, classification). There were statistically significant relationships for at least 50% of the questions in relation to CTI scores and engagement in risky behavior over the course of a lifetime in the following domains: (a) drug behaviors, (b) risky sexual behaviors, (c) heavy alcohol use, (d) self-harm, (e) impulsive eating, and (f) reckless behaviors.

There were statistically significant relationships for at least 50% of the questions in relation to CTI scores and engagement in risky behaviors due to feeling upset, distressed, or overwhelmed in the following domains: (a) drug behaviors, (b) heavy alcohol use, and (c) reckless behavior. There were statistically significant relationships for at least 50% of the questions related to scores on the CTI and individuals' engagement in risky behavior due to feelings of excitement, thrill, and pleasure in the domain of reckless behavior only. There were statistically significant relationships for at least 50% of the questions in relation to CTI scores and engagement in risky behavior at the age of 18 years or younger only in the domain of

impulsive eating. The demographic data collected in the current study provided a rich description of this study population.

Limitations

Several limitations in the current study should be acknowledged. The sample in the current study was a convenience sample and represents only a small portion of emerging adults in the United States. This sample size limits the generalizability of this research. In addition, data were collected during a time when social gatherings had been impacted by COVID-19. This global crisis may have influenced participants' responses on the assessments that were administered in the current study.

Implications and Directions for Future Research

This study revealed that feeling upset, distressed, or overwhelmed, and feelings of excitement, thrill, and pleasure may impact emerging adults' engagement in risky behavior. Statistical significance was found utilizing a Spearman's rho correlation analysis that measured the strength of associations between the variable's risky behavior engagement and career thoughts. The domains of risky behavior across the lifetime that were statically significant with CTI scores were all behaviors that contribute to leading causes of death for emerging adults, including motor vehicle accidents, unintentional injuries, and suicide.

Future researchers can consider the other variables that impact risky behavior in addition to their career thoughts. These researchers could use the Adult Hope Scale to measure participants' levels of hope for their futures. According to Snyder (2000), hope is a positive motivational state that is based on an interactively derived sense of successful agency and a pathway to meet personal goals. Future researchers could also use the Self-Regulation Questionnaire to measure participants' ability to develop, implement, and flexibly maintain

planned behavior to achieve one goals. Previous research (Hull & Slone, 2004; Magar et al., 2008) has shown that self-regulation skills may serve as protective measures that may reduce individuals' engagement in risky behavior.

In future research, possible protective measures can be assessed along with engagement in risky behavior, which could provide evidence-based tools that can be used to minimize risky behavior among emerging adults. Future researchers could also more closely examine the line of research and include emerging adults that are not enrolled in traditional four-year universities, vocational schools, or junior colleges to identify if similar results will be found.

Emerging adulthood, as an area of research, is growing and should be continuously explored by researchers and those who provide services for emerging adults, such as counselors, teachers, and coaches. There remains a need for better understanding of the factors associated with emerging adulthood that increase levels of engagement in risky behaviors as well as the protective measures that minimize engagement in risky behaviors. Deepening our understanding of emerging adulthood and identifying protective measures that minimize engagement in risky behaviors may allow us to support emerging adults as they attempt to successfully transition into adulthood.

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Appendix A: Career Thoughts Inventory

Career Thoughts Inventory™ (CTI™) Test Booklet

James P. Sampson, Jr., PhD
Gary W. Peterson, PhD
Janet G. Lenz, PhD
Robert C. Reardon, PhD
Denise E. Saunders, MS

This inventory has been developed to help people learn more about the way they think about career choices. Inside this booklet you will find statements describing thoughts that some people have when considering career choices. Please answer each statement openly and honestly as it describes you.

Directions:
Read each statement carefully and indicate the degree to which you agree or disagree with each item by circling the answer that best describes you. Do not omit any items.

SD = Strongly Disagree **D = Disagree** **A = Agree** **SA = Strongly Agree**

Circle **SD** if you strongly disagree with the statement.	(SD)	D	A	SA
Circle **D** if you disagree with the statement.	SD	(D)	A	SA
Circle **A** if you agree with the statement.	SD	D	(A)	SA
Circle **SA** if you strongly agree with the statement.	SD	D	A	(SA)

If you make a mistake or change your mind, DO NOT ERASE! Make an "X" through the incorrect response and then draw a circle around the correct response.

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Currently in school? ☐ Yes or ☐ No If yes, what grade or year?_____ Currently employed? ☐ Yes or ☐ No

If yes, current occupation_____ Years in current occupation _____

26. My opinions about occupations change frequently.	SD	D	A	SA
27. I'm so confused, I'll never be able to choose a field of study or occupation.	SD	D	A	SA
28. The more I try to understand myself and find out about occupations, the more confused and discouraged I get.	SD	D	A	SA
29. There are so many occupations to know about, I will never be able to narrow down the list to only a few.	SD	D	A	SA
30. I can narrow down my occupational choices to a few, but I don't seem to be able to pick just one.	SD	D	A	SA
31. Deciding on an occupation is hard, but taking action after making a choice will be harder.	SD	D	A	SA
32. I can't be satisfied unless I can find the perfect occupation for me.	SD	D	A	SA
33. I get upset when people ask me what I want to do with my life.	SD	D	A	SA
34. I don't know how to find information about jobs in my field.	SD	D	A	SA
35. I worry a great deal about choosing the right field of study or occupation.	SD	D	A	SA
36. I'll never understand enough about occupations to make a good choice.	SD	D	A	SA
37. My age limits my occupational choice.	SD	D	A	SA
38. The hardest thing is settling on just one field of study or occupation.	SD	D	A	SA
39. Finding a good job in my field is just a matter of luck.	SD	D	A	SA
40. Making career choices is so complicated, I am unable to keep track of where I am in the process.	SD	D	A	SA
41. My achievements must surpass my mother's or father's or my brother's or sister's.	SD	D	A	SA
42. I know so little about the world of work.	SD	D	A	SA
43. I'm embarrassed to let others know I haven't chosen a field of study or occupation.	SD	D	A	SA
44. Choosing an occupation is so complex, I'll never be able to make a good choice.	SD	D	A	SA
45. There are so many occupations that I like, I'll never be able to sort through them to find ones I like better than others.	SD	D	A	SA
46. I need to choose a field of study or occupation that will please the important people in my life.	SD	D	A	SA
47. I'm afraid if I try out my chosen occupation, I won't be successful.	SD	D	A	SA
48. I can't trust that my career decisions will turn out well for me.	SD	D	A	SA

Directions: Write the raw scores for CTI Total, DMC, CA, and EC in the spaces beneath the appropriate profile. Circle each raw score on the profile. Then draw lines connecting DMC, CA, and EC.

Profile for Adults

T score	Raw scores: CTI Total	DMC	CA	EC	%ile
≥80	132–144	39–42	28–30	10–15	>99
79	130–131			9	>99
78	99–129	38	25		>99
77	95–97	37	24		>99
76	93–94				>98
75	91–92	36	23		99
74	89–90	35		8	99
73	87–88	34	22		99
72	84–86				99
71	82–83	33	21		98
70	80–81	32			98
69	78–79		20	7	97
68	75–77	31	19		96
67	73–74	30			96
66	71–72		18		95
65	69–70	29			93
64	67–68	28	17	6	92
63	64–66	27			90
62	62–63		16		88
61	60–61	26			86
60	58–59	25	15	5	84
59	56–57				82
58	53–55	24	14		79
57	51–52	23	13		76
56	49–50				73
55	47–48	22	12	4	69
54	45–46	21			66
53	42–44	20	11		62
52	40–41				58
51	38–39	19	10		54
50	36–37	18		3	50
49	34–35		9		46
48	31–33	17	8		42
47	29–30	16			38
46	27–28		7	2	34
45	25–26	15			31
44	22–24	14	6		27
43	20–21	13			24
42	18–19		5		21
41	16–17	12		1	18
40	14–15	11	4		16
39	11–13				14
38	9–10	10	3		12
37	7–8		2		10
36	5–6			0	8
35	3–4		1		7
34	0–2				5
33			0		4
32					4
31					3
30					2
29					2
28					1
≤27					1

Raw scores ____ ____ ____ ____

Profile for College Students

T score	Raw scores: CTI Total	DMC	CA	EC	%ile
≥80	109–144	33–42	29–30	10–15	>99
79	107–108				>99
78	106–106	32	28		>99
77	103–104	31			>99
76	101–102	30	27	9	>99
75	99–100	29			99
74	97–98		26		98
73	95–96	28	25		98
72	92–94	27		8	98
71	90–91	26	24		98
70	88–89				98
69	86–87	25	23		97
68	84–85	24			96
67	82–83	23	22	7	96
66	80–81				95
65	78–79	22	21		93
64	76–77	21			92
63	74–75	20	20		90
62	72–73			6	88
61	69–71	19	19		86
60	67–68	18			84
59	65–66		18		82
58	63–64	17	17	5	79
57	61–62	16			76
56	59–60	15	16		73
55	57–58				69
54	55–56	14	15		66
53	53–54	13		4	62
52	51–52	12	14		58
51	49–50				54
50	46–48	11	13		50
49	44–45	10		3	46
48	42–43	9	12		42
47	40–41				38
46	38–39	8	11		34
45	36–37	7	10		31
44	34–35	6		2	27
43	32–33		9		24
42	30–31	5			21
41	28–29	4	8		18
40	26–27	3			16
39	23–25		7	1	14
38	21–22	2			12
37	19–20	1	6		10
36	17–18				8
35	15–16	0	5	0	7
34	13–14				5
33	11–12		4		4
32	9–10				4
31	7–8		3		3
30	5–6		2		2
29	3–4				2
28	1–2		1		1
≤27	0		0		1

Raw scores ____ ____ ____ ____

Profile for High School Students

T score	Raw scores: CTI Total	DMC	CA	EC	%ile
≥80	116–144	33–42	27–30	11–15	>99
79	108–115	32		10	>99
78	106–107		26		>99
77	104–105	31			>99
76	102–103	30	25		>99
75	100–101				99
74	97–99	29	24	9	99
73	95–96	28			99
72	93–94		23		99
71	91–92	27			98
70	89–90	26	22		98
69	87–88	25		8	97
68	85–86		21		96
67	83–84	24			96
66	81–82	23	20		95
65	79–80			7	93
64	77–78	22	19		92
63	75–76	21			90
62	73–74	20	18		88
61	71–72				86
60	69–70	19	17	6	84
59	67–68	18			82
58	65–66		16		79
57	63–64	17			76
56	61–62	16	15		73
55	59–60			5	69
54	56–58	15	14		66
53	54–55	14			62
52	52–53	13	13		58
51	50–51			4	54
50	48–49	12	12		50
49	46–47	11			46
48	44–45		11		42
47	42–43	10			38
46	40–41	9	10	3	34
45	38–39				31
44	36–37	8			27
43	34–35	7	9		24
42	32–33	6			21
41	30–31		8	2	18
40	28–29	5			16
39	26–27	4	7		14
38	24–25				12
37	22–23	3	6	1	10
36	20–21	2			8
35	18–19	1	5		7
34	15–17				5
33	13–14	0	4		4
32	11–12			0	4
31	9–10		3		3
30	7–8				2
29	5–6		2		2
28	3–4				1
≤27	0–2		0–1		1

Raw scores ____ ____ ____ ____

Appendix B: RISQ Questionnaire

For each behavior, fill-in how many times you did it in your lifetime (A) & the total number of times you did it the past month (B). ***Enter one number for each time period, even if it is your best guess. Please do not put a range, but enter a single number*** (e.g., behaviors engaged in everyday for multiple years can be written in as 1000+, behaviors engaged in daily for a single year can be written in as 365, any other frequency should be estimated using your best guess). If you have ever done the behavior, write how old you were the first time (C) and check the box if the behavior ever caused you ***any*** problems, regardless of the specific problem (D). For the last two columns (E & F), use the scale in the box to rate how much you agree with each statement from 0 = Strongly Disagree to 4 = Strongly Agree. ***Please provide ratings for both statements (E & F), and treat them as separate questions.*** The first two rows are examples of how to complete each item.

0 Strongly Disagree	1 Somewhat Disagree	2 Equally Disagree/Agree	3 Somewhat Agree	4 Strongly

		A	B	C	D	E	F
		How many times total have you done this **in your life**?	**How many times** have you done this **in the past month**?	**How old** were you the **first time**?	Did it ever **cause you any problems**, such as • going to the hospital • legal trouble • problems at work, with family or friends	I do this behavior to **stop feeling upset, distressed, or overwhelmed**	I do this behavior to **feel excitement, to get a thrill, or to feel pleasure**
	Behavior	**# TOTAL**	**# past MONTH**	**Age**	**Y=*YES***	**Rate 0-4**	**Rate 0-4**
Ex.	*Driven a car while intoxicated*	*10*	*2*	*18*	Y	*4*	*3*
Ex.	*Jumped out of a plane*	*0*					
1	**Shoplifted things**						
2	**Drove 30mph or faster over the speed limit**						
3	**Bet on sports, horses, or other animals**						
4	**Used cocaine or crack**						
5	**Bought drugs**						
6	**Impulsively bought stuff you did not need & won't use**						
7	**Had unprotected sex with someone you just met or didn't know well**						

SUBID:_____

0 Strongly Disagree	1 Somewhat Disagree	2 Equally Disagree/Agree	3 Somewhat Agree	4 Strongly

		A	B	C	D	E	F
		How many times total have you done this in your life?	How many times have you done this in the past month?	How old were you the first time?	Did it ever cause you any problems, such as • going to the hospital • legal trouble • problems at work, with family or friends	I do this behavior to stop feeling upset, distressed, or overwhelmed	I do this behavior to feel excitement, to get a thrill, or to feel pleasure
	Behavior	**# TOTAL**	**# past MONTH**	**Age**	**Check box if *YES***	**Rate 0-4**	**Rate 0-4**
8	**Gotten in a physical fight**						
9	**Thought about killing yourself**						
10	**Had sex for money or drugs**						
11	**Drank alcohol until you blacked or passed out**						
12	**Used hallucinogens, LSD, mushrooms**						
13	**Gone to work intoxicated or high**						
14	**Attacked someone with a weapon, such as a knife or gun**						
15	**Punched or hit someone with a fist or object**						
16	**Cut, burned, or hurt yourself on purpose without trying to die**						
17	**Lost more money than you could afford gambling**						
18	**Threatened to physically hurt someone**						
19	**Threatened someone with a weapon, such as a knife or gun**						

SUBID:_____

0	1	2	3	4
Strongly Disagree	Somewhat Disagree	Equally Disagree/Agree	Somewhat Agree	Strongly

		A	B	C	D	E	F
		How many times total have you done this in your life?	How many times have you done this in the past month?	How old were you the first time?	Did it ever cause you any problems, such as • going to the hospital • legal trouble • problems at work, with family or friends	I do this behavior to stop feeling upset, distressed, or overwhelmed	I do this behavior to feel excitement, to get a thrill, or to feel pleasure
	Behavior	**# TOTAL**	**# past MONTH**	**Age**	**Check box if *YES***	**Rate 0-4**	**Rate 0-4**
20	**Used heroin**						
21	**Destroyed or vandalized property**						
22	**Drank 5 or more alcoholic drinks in 3 hours or less**						
23	**Paid for sex**						
24	**Sold drugs**						
25	**Robbed someone**						
26	**Tried to kill yourself**						
27	**Used marijuana**						
28	**Had difficulty stopping eating**						
29	**Been in 2 or more sexual relationships at the same time**						
30	**Bought expensive items you could not afford on the spur of the moment**						
31	**Abused multiple drugs at once**						
32	**Played lotteries, card games for money, or went to the casino**						
33	**Gambled illegally (not part of a legal business, using a bookie)**						
34	**Abused prescription medication**						
35	**Ate a lot of food when not hungry**						
36	**Had a plan to kill yourself**						
37	**Ran red lights or ignored stop signs**						
38	**Stole money**						

RISQ Scoring for behaviors (lifetime, last month), age of onset (mean), perceived consequences (mean), & affective triggers (mean approach/mean avoidance)

Total Score: all items

Drug Behaviors: 4, 5, 12, 20, 24, 27, 31, 34

Aggression: 8, 14, 15, 18, 19,

Gambling: 3, 17, 32, 33

Risky Sexual Behavior: 7, 10, 23, 29

Heavy Alcohol Use: 11, 22,

Self-Harm: 9, 16, 26, 36,

Impulsive Eating: 28, 35

Reckless Behaviors: 2, 6, 30, 37

Considerations: To reduce skewness in the frequency of behaviors, create bins of 0, 1-10, 11-50, 51-100, >100

Appendix C: IRB Approval

AUBURN UNIVERSITY

Information Letter for a Research Study entitled

"Risky Behavior & Career Thoughts in Emerging Adults"

You are invited to participate in a research study to gain an understanding of the relationship between risky behavior and career thoughts among emerging adults. The study is being conducted by Mr. Julian Shields, Auburn University doctoral candidate under the direction of Dr. Nicholas Derzis, Associate Professor, in the Auburn University Department of Special Education, Rehabilitation and Counseling. You were selected as a possible participant because you are currently enrolled in Auburn University as a student and are age 19 or older.

What will be involved if you participate? If you decide to participate in this research study, you will be asked to complete two surveys regarding your thoughts about your career and risky behavior engagement. Your total time commitment will be approximately 50 minutes.

Are there any risks or discomforts? The risk associated with participating in this study is breach of confidentiality. To minimize these risks, we will not collect personal identifying data.

Are there any benefits to yourself or others? If you participate in this study, you can expect to assist in improving the understanding of the relationship between career thoughts and risky behavior among emerging adults. I cannot promise you that you will receive any or all the benefits described.

Will you receive compensation? for participating? No, there will be no compensation for participating in the study

Are there any cost? If you decide to participate, you will participate with no monetary costs.

If you change your mind about participating, you can withdraw at any time during the study. Your participation is completely voluntary. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Your decision about whether or not to participate will not jeopardize your future relations with Auburn University, the Department of Special Education, Rehabilitation and Counseling.

Your privacy will be protected. Any information obtained in connection with this study will remain anonymous. Information obtained through your participation may be published in a professional journal, used for a dissertation study and presented at professional conferences.

The Auburn University Institutional Review Board has approved this Document for use from 09/20/2021 to ----------
Protocol # 21-294 EP 2109

100 Ramsay Hall, Auburn, Alabama 36849 • Telephone: 334-844-5927 • Fax: 334-844-5950
auburn.edu/atli

If you have any questions about this study, please ask them now or contact Julian Shields at jms0208@auburn.edu or Dr. Derzis at derzinc@auburn.edu . A copy of this document will be given to you to keep.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334) 844 – 5966 or e-mail at irbadmin@auburn.edu or irbchair@auburn.edu

Information on COVID-19 For Research Participants (updated 05/27/2021)

Auburn University recognizes the essential role of research participants in the advancement of science and innovation for our university, community, state, nation, and beyond. Therefore, protection of those who volunteer to participate in Auburn University research is of utmost importance to our institution.

As you are likely aware, COVID-19 references the Coronavirus that is being spread around the world including in our country, state, and community. It is important that we provide you with basic information about COVID-19 and the risks associated with the virus so that you can determine if you wish to participate or continue your participation in human research.

How is COVID-19 spread? COVID-19 is a respiratory virus that is spread by respiratory droplets, mainly from person-to person. This can happen between people who are in close contact with one another. COVID-19 may also be spread by exposure to the virus in small droplets that can linger in the air. This kind of spread is referred to as airborne transmission. It is also possible that a person can get COVID-19 by touching a surface or object (such as a doorknob or counter surface) that has the virus on it, then touching their mouth, nose, or eyes.

Please visit the CDC's web page for more information on how COVID-19 spreads.

Can COVID-19 be prevented? Although there is no guarantee that infection from COVID-19 can be prevented, there are ways to minimize the risk of exposure to the virus. For instance, stay 6 feet apart from others who don't live with you; get a COVID-19 vaccine when it is available to you; avoid crowds and poorly ventilated indoor spaces; use effective barriers between persons; wear personal protective equipment like masks, gloves, etc.; wash hands with soap and water or use hand sanitizer after touching objects; disinfect objects touched by multiple individuals.

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What are the risks of COVID-19? For most people, COVID-19 causes only mild or moderate symptoms, such as fever and cough. For some, especially older adults and people with existing health problems, it can cause more severe illness. While everyone is still learning about this virus, current information suggests that about 1-3% of people who are infected with COVID-19 might die as a result.

Who is most at risk? Individuals over age 65 and those with chronic conditions such as cancer, diabetes, heart or lung or liver disease, severe obesity, and conditions that cause a person to be immunocompromised have the highest rates of severe disease and serious complications from infection.

What precautions should be taken? Based on the proposed research, precautions for the risk of COVID-19 will be addressed on a project by project basis. You will be provided with information about precautions for the project in which you may participate. Any site where research activities will occur that are not a part of Auburn University (offsite location) are expected to have standard procedures for addressing the risk of COVID-19. It is important for participants to follow any precautions or procedures outlined by Auburn University and, when applicable, offsite locations. Further, participants will need to determine how best to address the risk of COVID-19 when traveling to and from research locations. The US Center for Disease Control and Prevention has issued recommendations on types of prevention measures you can use to reduce your risk of exposure and the spread of COVID-19.

Auburn University is continuing to monitor the latest information on COVID-19 to protect our students, employees, visitors, and community. Our research study teams will update participants as appropriate. If you have specific questions or concerns about COVID-19 or your participation in research, please talk with your study team. The name and contact information for the study team leader, along with contact information for the Auburn University Institutional Review Board for Protection of Human Research Participants, can be found in the consent document provided to you by the study team.

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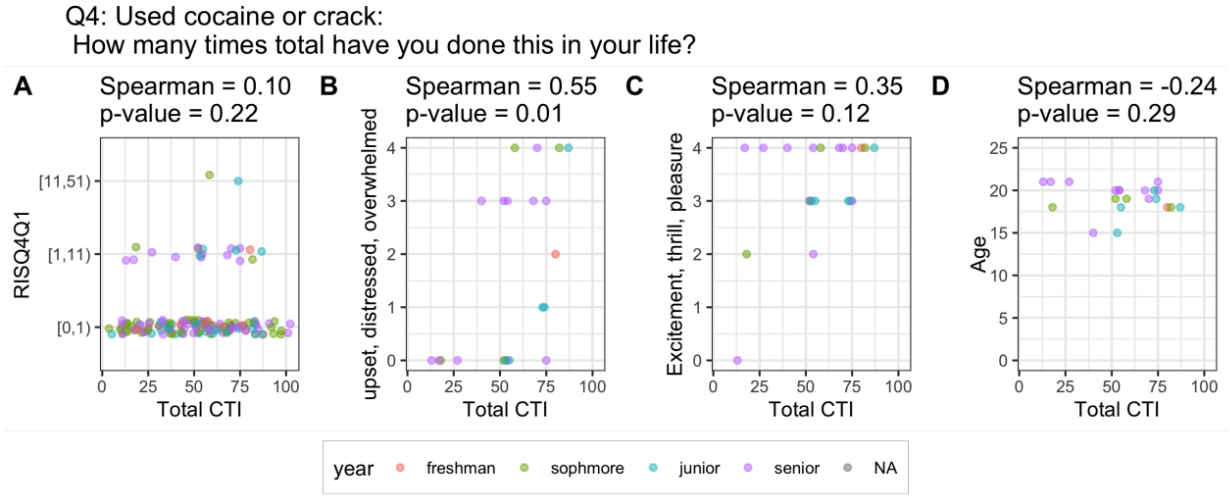
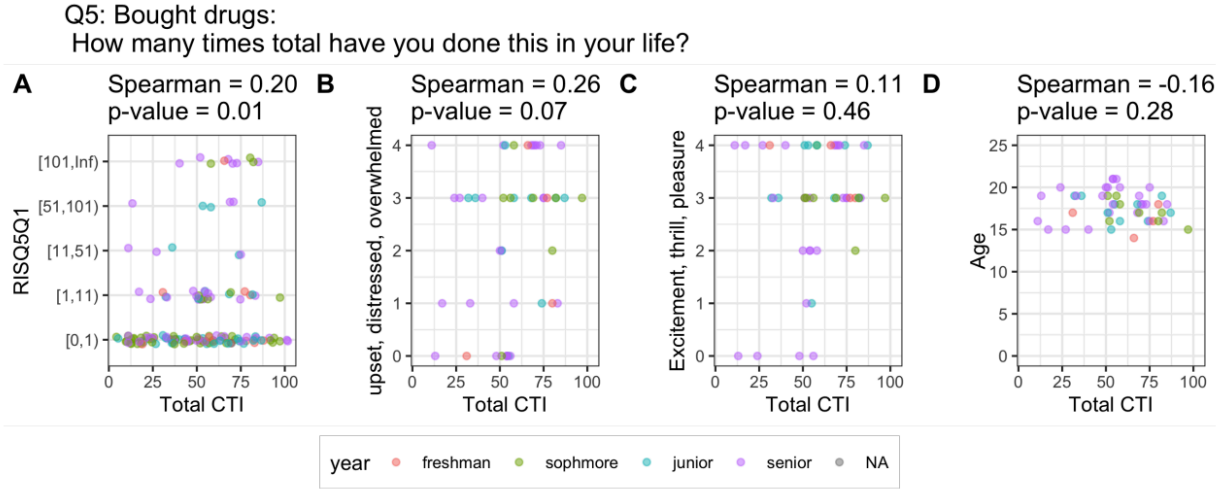
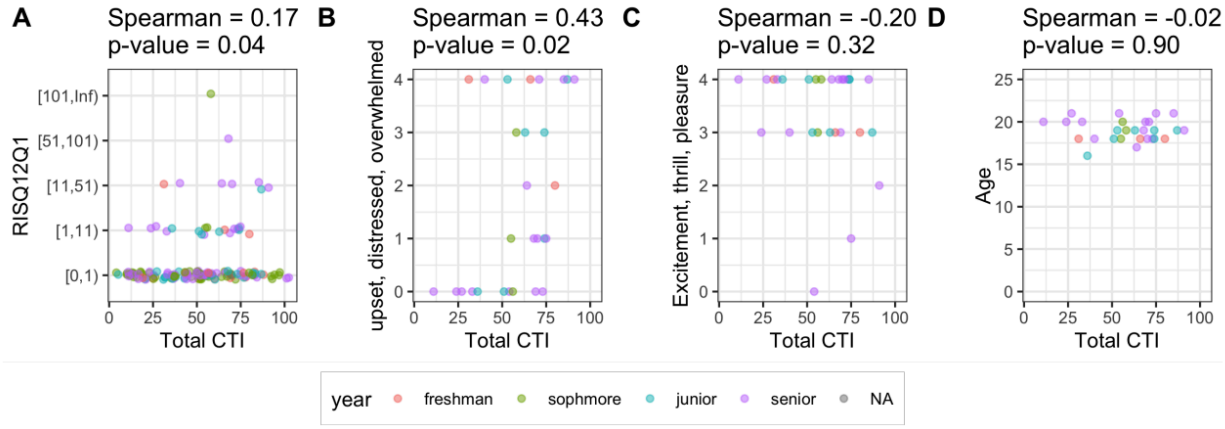
Appendix D: Graphs of Results

Drug Behaviors (4, 5, 12, 20, 24, 27, 31, 34)

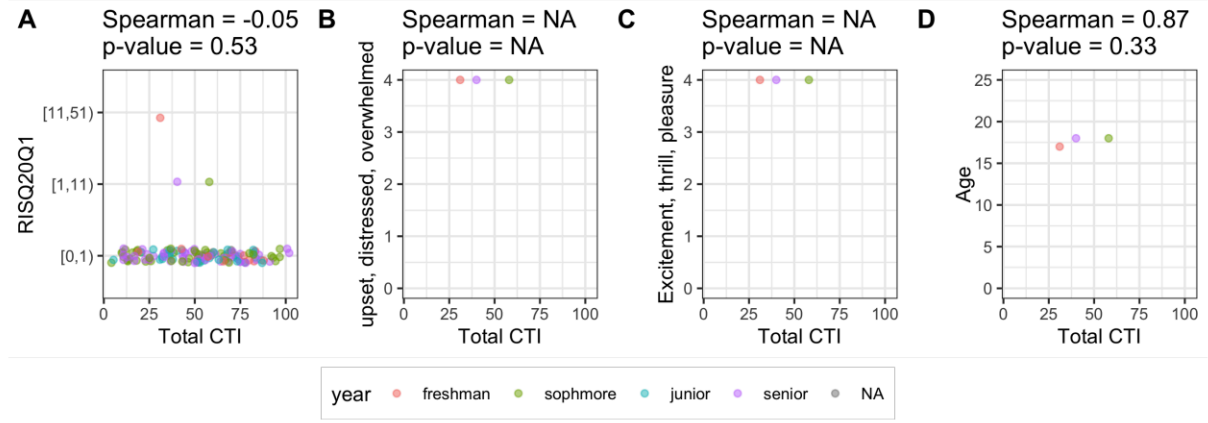




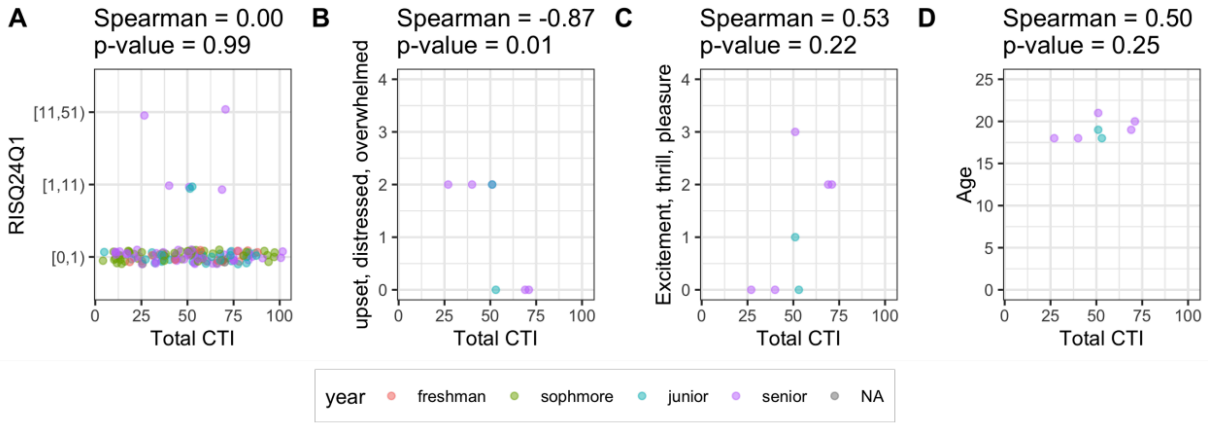
Q12: Used hallucinogens, LSD, mushrooms:
How many times total have you done this in your life?



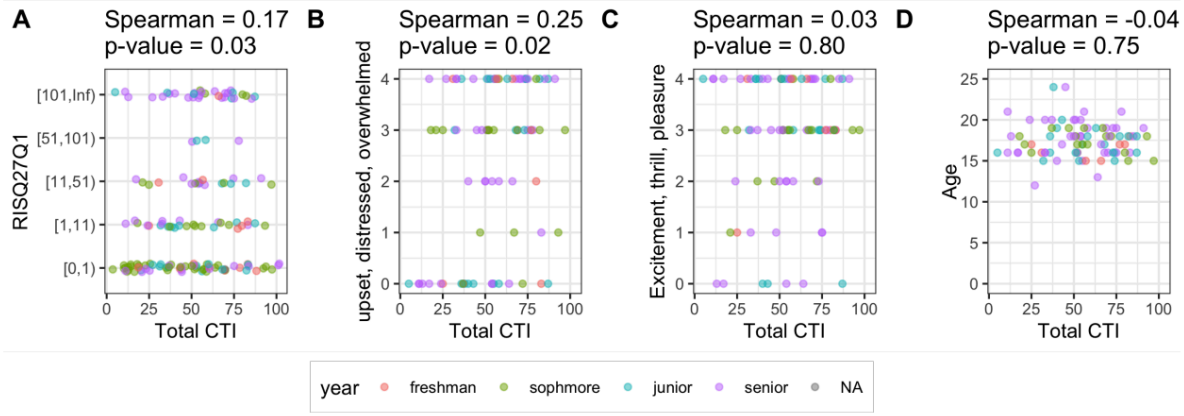
Q20: Used heroin:
How many times total have you done this in your life?



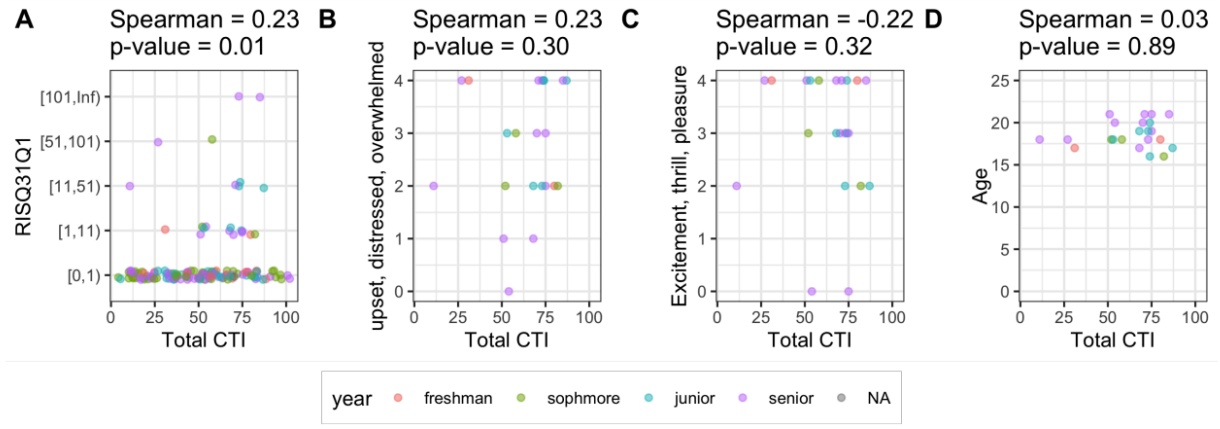
Q24: Sold drugs:
How many times total have you done this in your life?



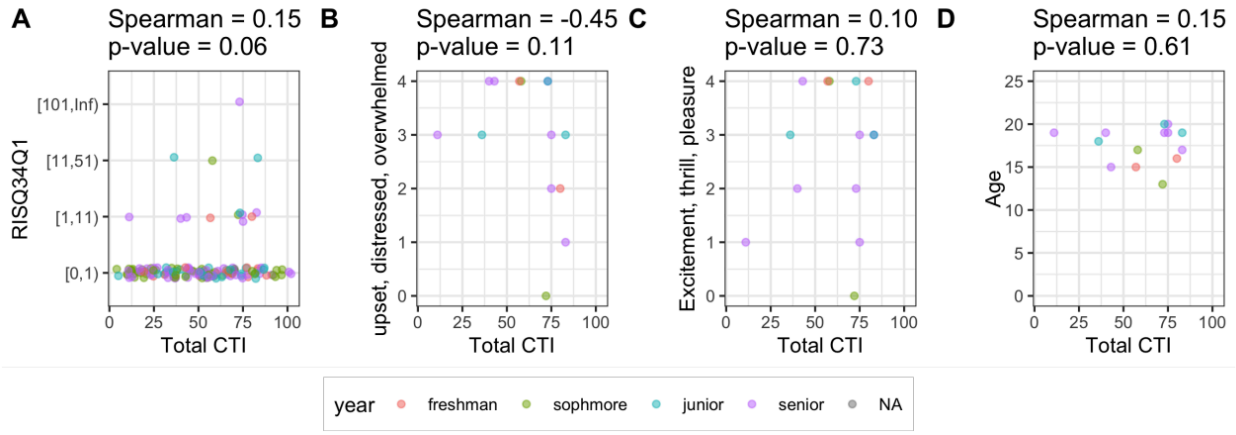
Q27: Used marijuana:
How many times total have you done this in your life?



Q31: Abused multiple drugs at once:
How many times total have you done this in your life?

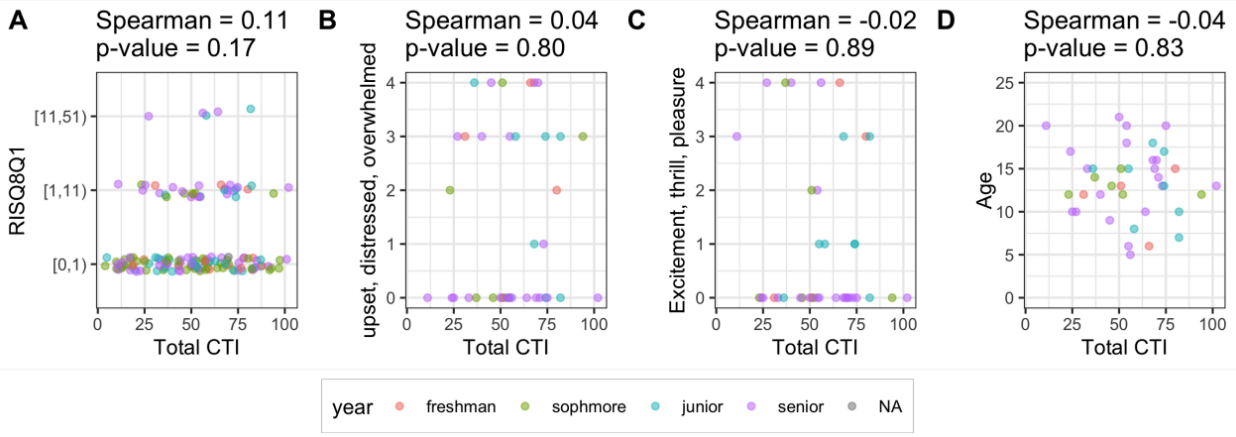


Q34: Abused prescription medication:
How many times total have you done this in your life?

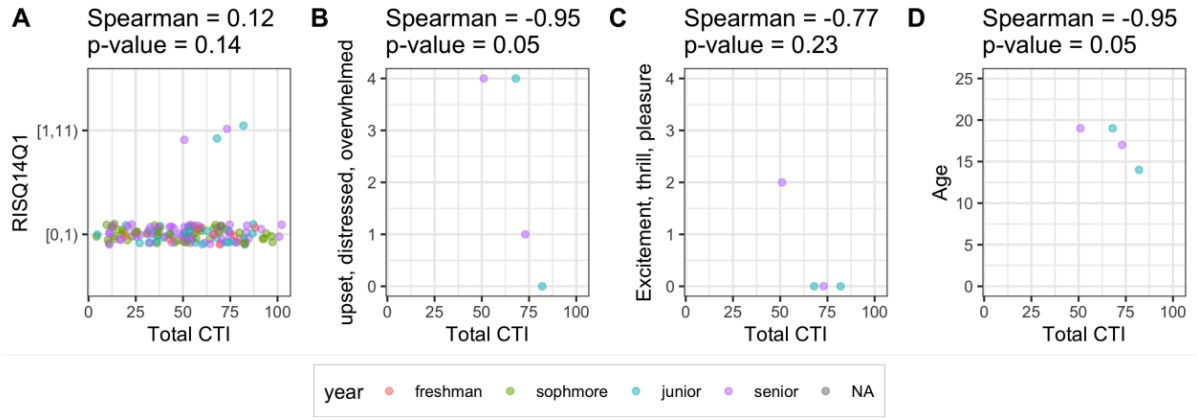


Aggression (8, 14, 15, 18, 19)

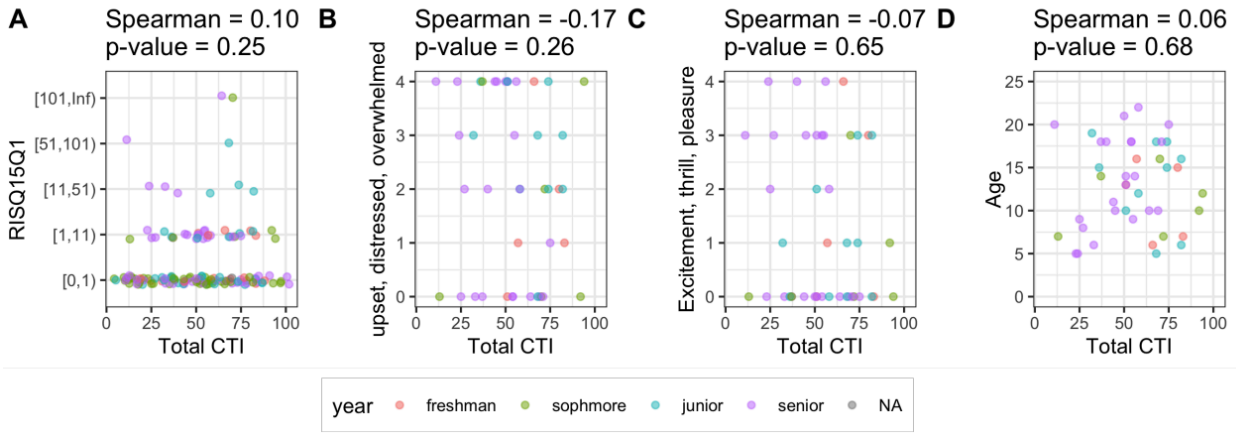
Q8: Gotten in a physical fight:
How many times total have you done this in your life?



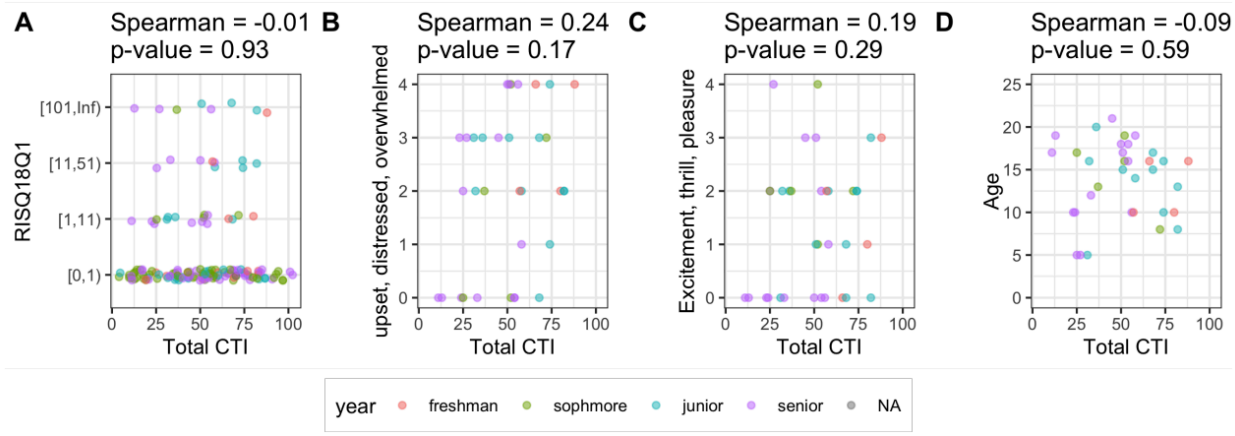
Q14: Attacked someone with a weapon, such as a knife or gun:
How many times total have you done this in your life?



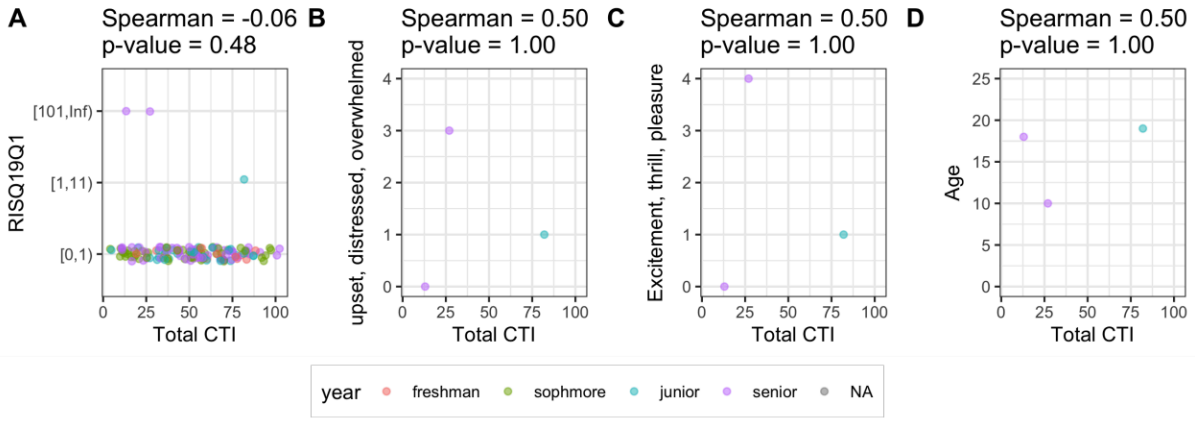
Q15: Punched or hit someone with a fist or object:
How many times total have you done this in your life?



Q18: Threatened to physically hurt someone:
How many times total have you done this in your life?

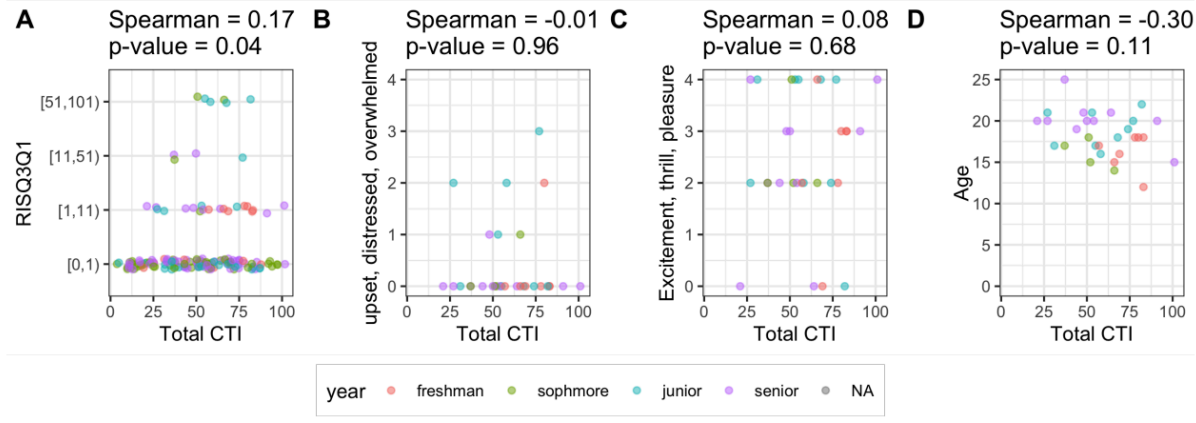


Q19: Threatened someone with a weapon, such as a knife or gun:
How many times total have you done this in your life?

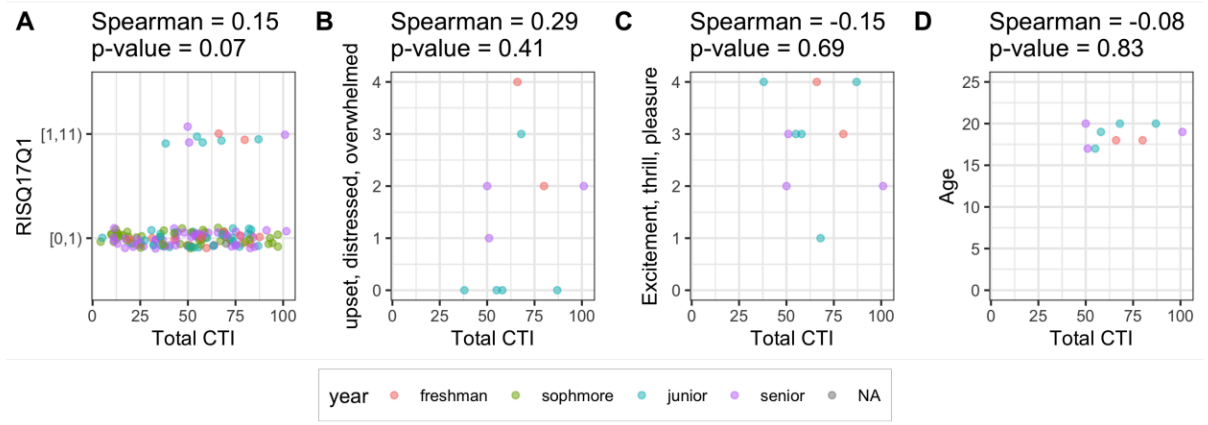


Gambling (3, 17, 32, 33)

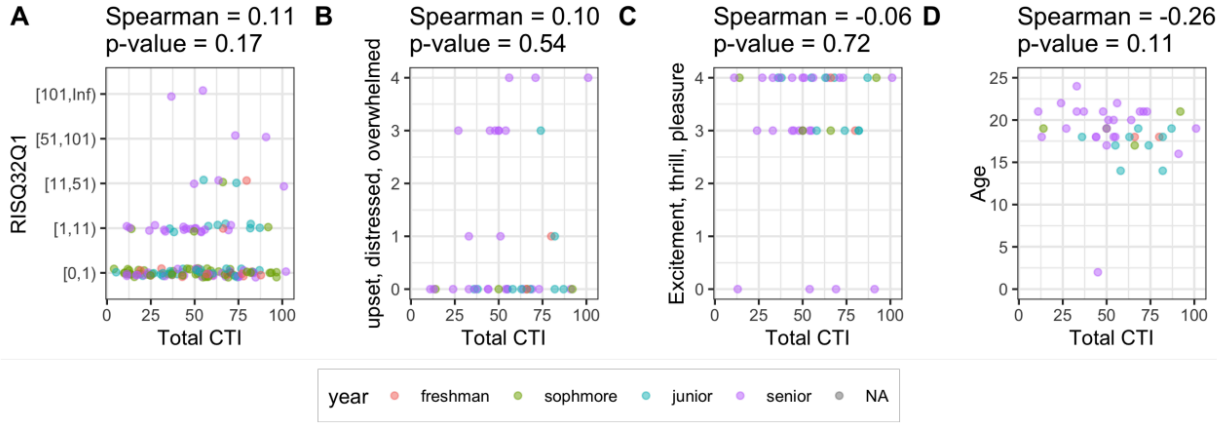
Q3: Bet on sports, horses, or other animals:
How many times total have you done this in your life?



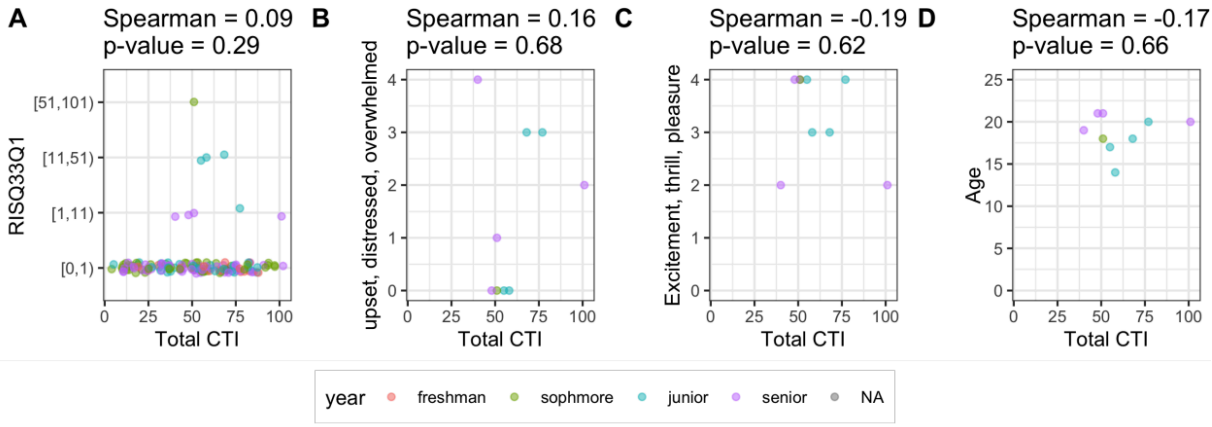
Q17: Lost more money than you could afford gambling:
How many times total have you done this in your life?



Q32: Played lotteries, card games for money, or went to the casino:
How many times total have you done this in your life?

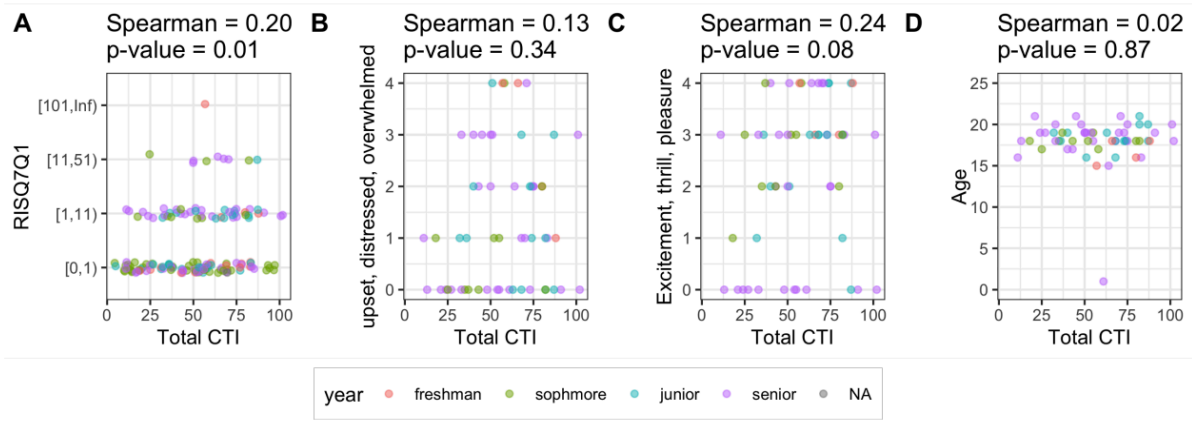


Q33: Gambled illegally (not part of a legal business, using a bookie):
How many times total have you done this in your life?

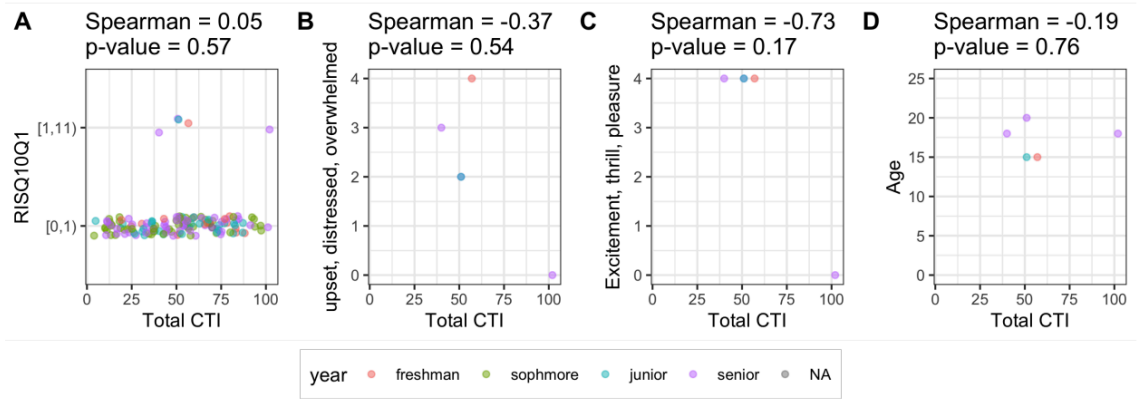


Risky Sexual Behavior (7, 10, 23, 29)

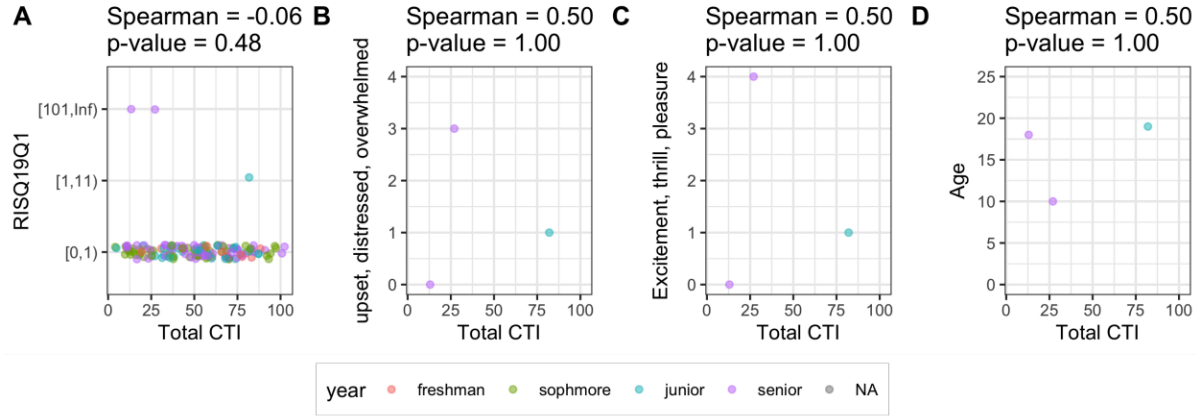
Q7: Had unprotected sex with someone you just met or didn't know well:
How many times total have you done this in your life?



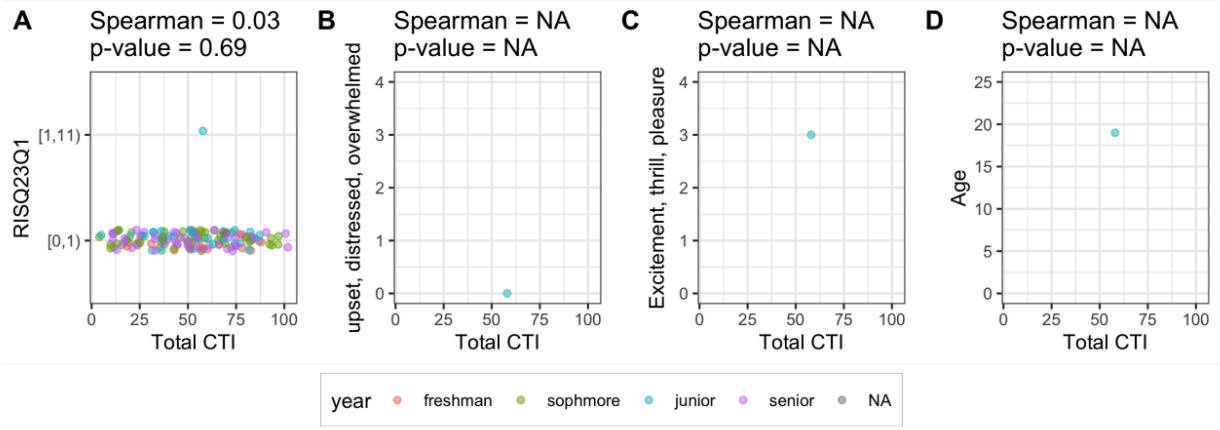
Q10: Had sex for money or drugs:
How many times total have you done this in your life?



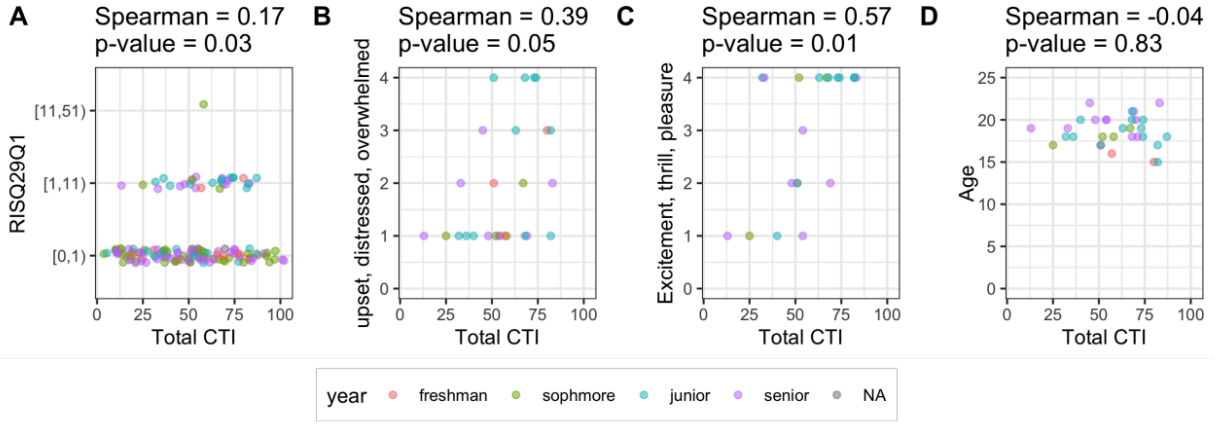
Q19: Threatened someone with a weapon, such as a knife or gun:
How many times total have you done this in your life?



Q23: Paid for sex:
How many times total have you done this in your life?

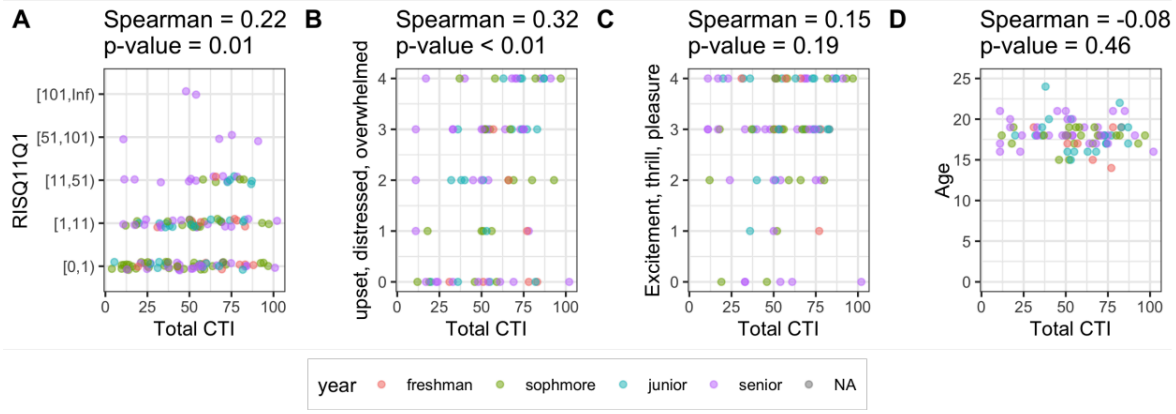


Q29: Been in 2 or more sexual relationships at the same time:
How many times total have you done this in your life?

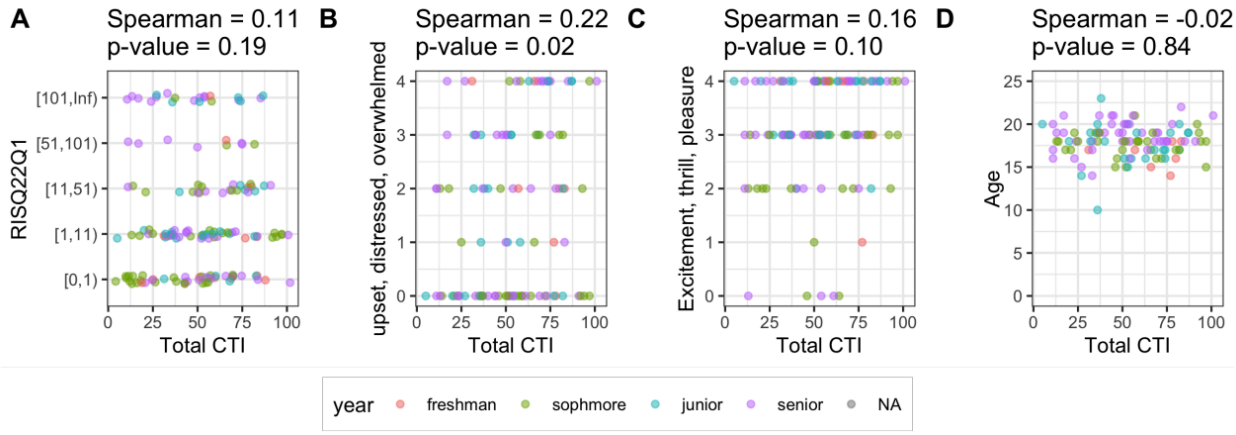


Heavy Alcohol Use (11, 22)

Q11: Drank alcohol until you blacked or passed out:
How many times total have you done this in your life?

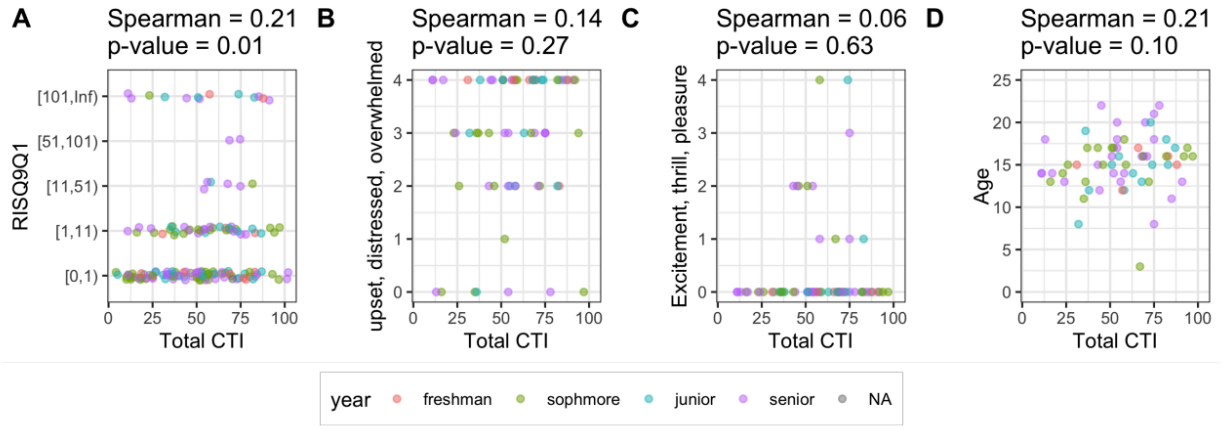


Q22: Drank 5 or more alcoholic drinks in 3 hours or less:
How many times total have you done this in your life?

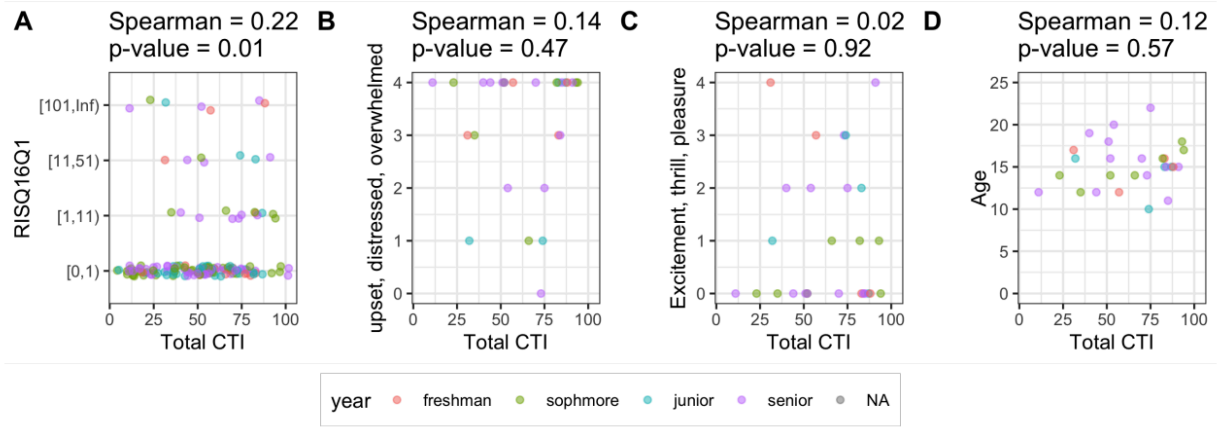


Self-Harm (9, 16, 26, 36)

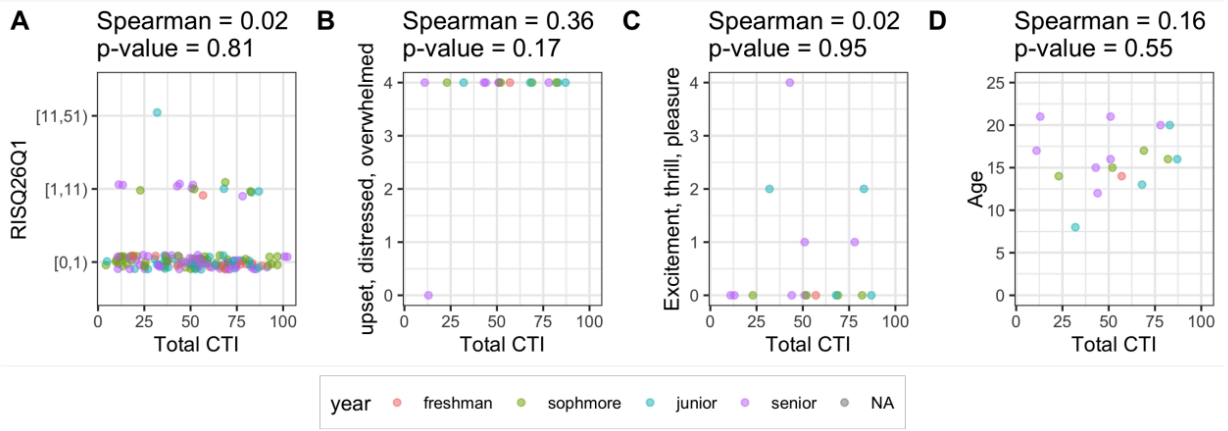
Q9: Thought about killing yourself:
How many times total have you done this in your life?



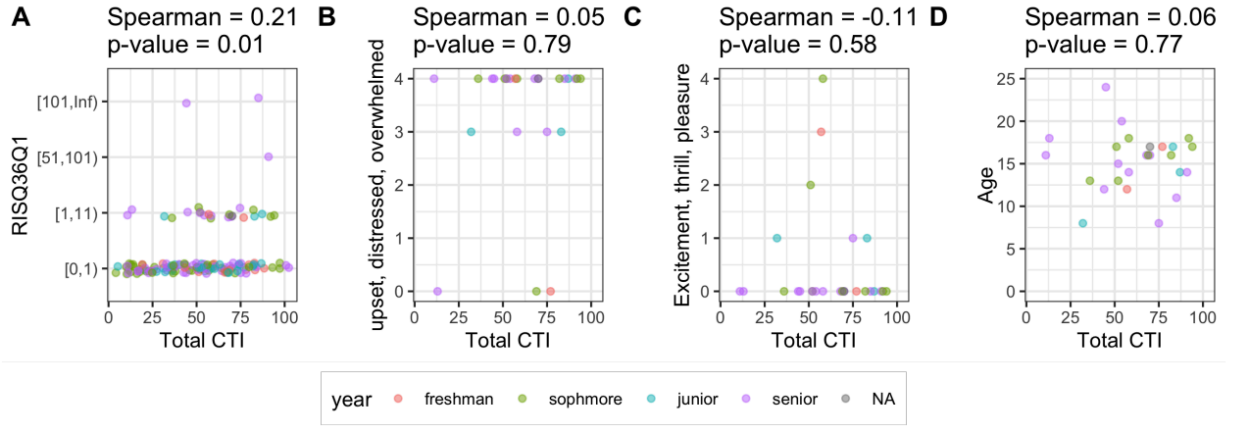
Q16: Cut, burned, or hurt yourself on purpose without trying to die:
How many times total have you done this in your life?



Q26: Tried to kill yourself:
How many times total have you done this in your life?

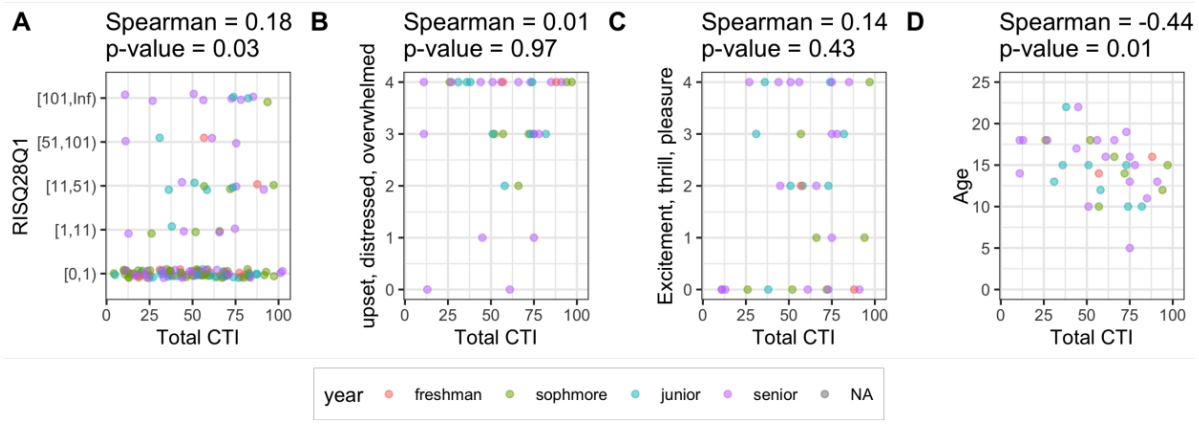


Q36: Had a plan to kill yourself:
How many times total have you done this in your life?

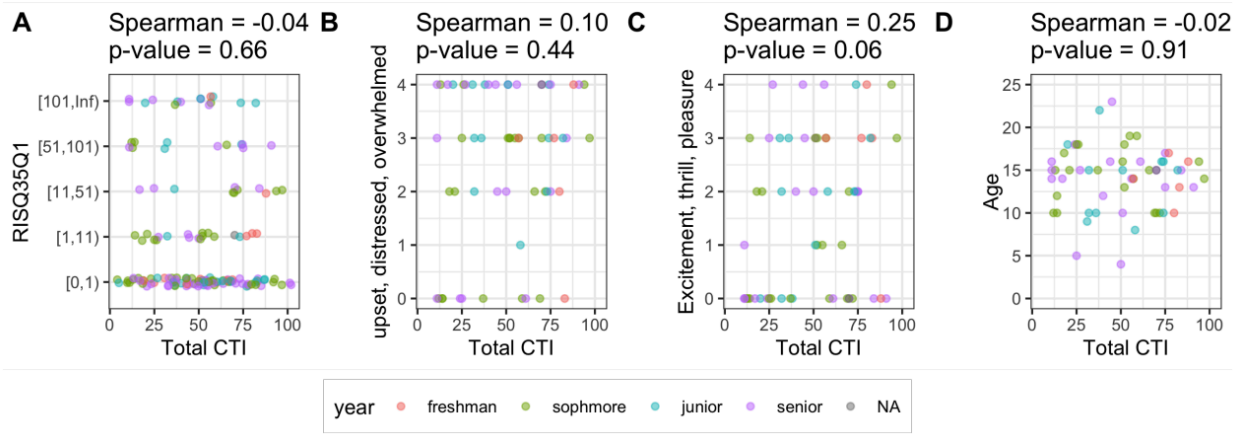


Impulsive Eating (28, 35)

Q28: Had difficulty stopping eating:
How many times total have you done this in your life?

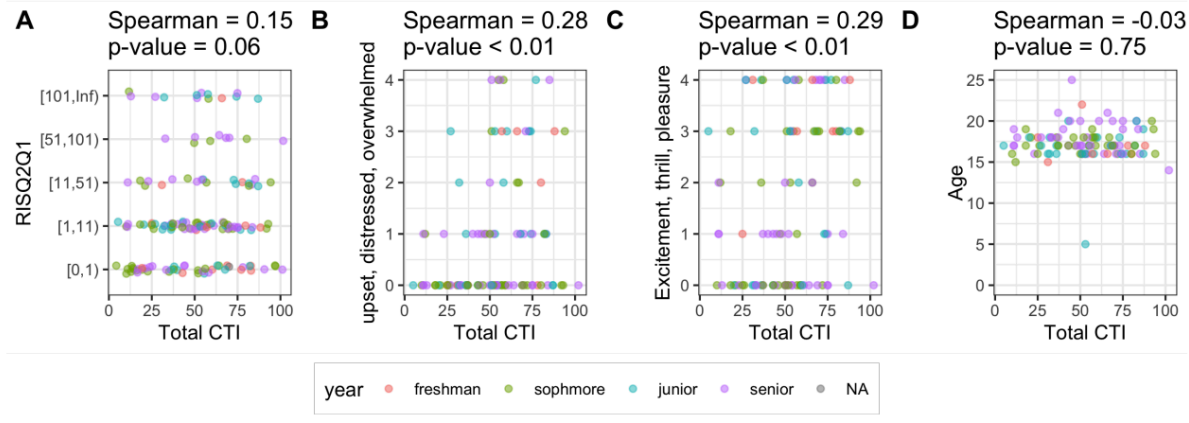


Q35: Ate a lot of food when not hungry:
How many times total have you done this in your life?

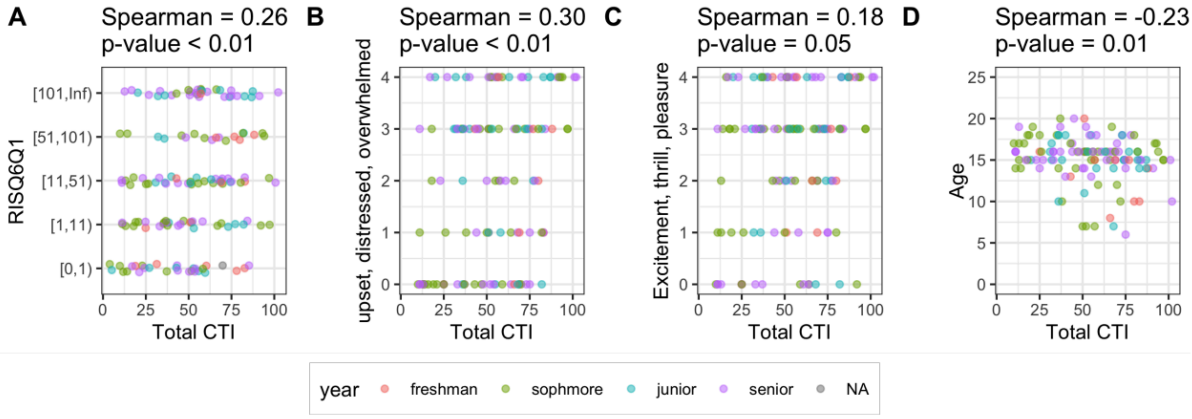


Reckless Behaviors (2, 6, 30, 37)

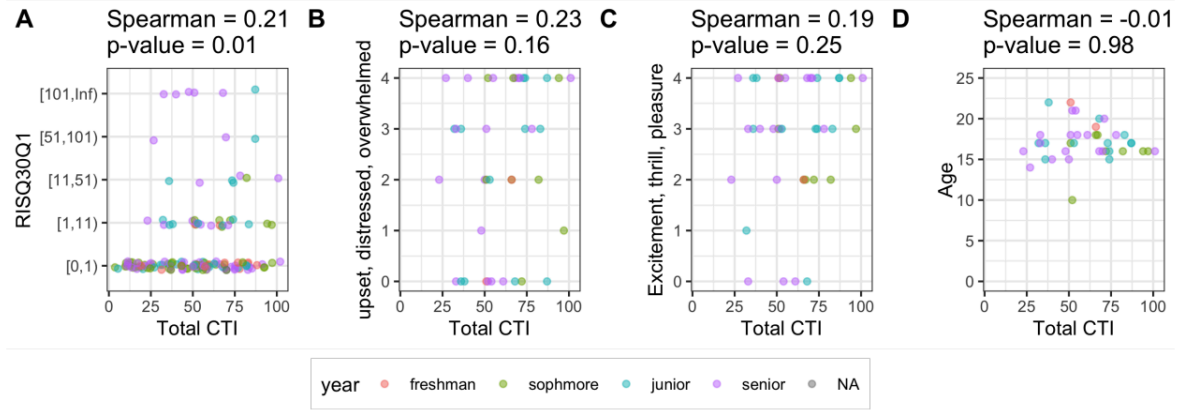
Q2: Drove 30mph or faster over the speed limit:
How many times total have you done this in your life?



Q6: Impulsively bought stuff you did not need & won't use:
How many times total have you done this in your life?



Q30: Bought expensive items you could not afford on the spur of the moment:
How many times total have you done this in your life?



Q37: Ran red lights or ignored stop signs:
How many times total have you done this in your life?