EFFECTS OF IDENTITY STYLES AND INSECURE ATTACHMENT DIMENSIONS ON INTERNALIZING BEHAVIORS

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EFFECTS OF IDENTITY STYLES AND INSECURE ATTACHMENT DIMENSIONS ON INTERNALIZING BEHAVIORS

BY

BY WILLIAM VEGA

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR

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IN

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OF
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ABSTRACT

The present study sought to explore how identity styles and attachment dimensions work together to influence internalizing behaviors (anxiety and depression) in emerging adulthood. The data for this study came from a 2017 study known as the “Identity Attachment Project”, which was supported by the College of Health Sciences at the University of Rhode Island. The analysis sample consisted of 438 participants from the University of Rhode Island who were in a romantic relationship and not already cohabitating, engaged, or married. Two multiple regression analyses were conducted to evaluate whether the identity styles and both attachment dimensions were related to depression and anxiety. Results indicated that the informational identity style, the diffuse-avoidant identity style, avoidant attachment, and anxious attachment were positively related to anxiety and/or depression. Interaction terms were also created for each identity style interacting with each attachment dimension while controlling for the remaining predictors. A total of six interaction terms (three per each model) were created but only one was significant for each model. Results indicated that individuals showing high levels of an informational identity style and an avoidant attachment style indicated higher levels of anxiety as well as higher levels of depression. These findings suggest that identity styles and attachment dimensions can work together to increase the levels of internalizing behaviors among emerging adults, particularly emerging adults in dating relationships.
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CHAPTER 1
INTRODUCTION

Internalizing problems are behavioral problems that are directed inward towards the individual and can cause significant stress (Jensen, 2016). This is an issue that many young adults suffer from worldwide and each of these problems can develop into specific disorders that can have a debilitating impact on a person’s well-being. For example, the most severe form of depression (known as Major Depressive Disorder) is characterized by persistent sad moods but is also associated with a variety of other issues such as trouble maintaining a healthy weight, insomnia, diminished interest or pleasure, and feelings of worthlessness (American Psychiatric Association, 2013). Anxiety disorders can take on a variety of different forms such as phobias or panic disorders; obsessive compulsive disorder was also previously listed as an anxiety disorder (American Psychiatric Association, 2013). As such, anxiety will be discussed as Generalized Anxiety Disorder (GAD) to differentiate it from other known anxiety disorders. GAD is characterized by excessive worry or anxiety in a multitude of different areas (American Psychiatric Association, 2013). These issues are especially grave for emerging adults in the United States because they have high rates of internalizing problems such as depression and/or generalized anxiety disorder (Arnett & Schwab, 2012). It is incredibly important to identify what factors can contribute to the rates of these internalizing problems.

One possible factor is the development of an identity. One of the most crucial tasks of adolescence and young adulthood is to develop a sense of identity (Erikson, 1959). The process that involves experiencing different alternatives while collecting
information about oneself is known as identity exploration (Kerpelman et al., 2012). Dating, for example is considered to be a form of identity exploration because it is a social activity that involves an individual engaging in intimate relationships with different partners while discovering new information about oneself. Adolescents and young adults utilize various identity exploration strategies (i.e., identity styles) to develop a sense of self (Berzonsky, 1992). Created by Berzonsky, “identity styles are differences in the social-cognitive strategies that individuals would most prefer to utilize when negotiating identity conflicts” (Berzonsky et al., 2013, p. 894).

Another factor crucial to the development of internalizing problems (depression and generalized anxiety disorder) is the development of the attachment system. The attachment system is responsible for the development of many behaviors designed to protect an individual from possible danger (Bartholomew, 1990). Both attachment and identity are important developmental tools but if not properly developed, each can result in debilitating issues such as internalizing problems. Therefore, the aim of the present study was to examine how both attachment dimensions and identity styles contribute to the development of internalizing problems in emerging adulthood.

The research questions for this study explored whether or not attachment dimensions and identity styles are related to internalizing behaviors in emerging adulthood both individually, as well as together. The variables of this study consist of attachment dimensions (anxiety and avoidant dimensions), identity styles (informational, normative, and diffuse-avoidant), generalized anxiety disorder, and depression.

The dataset used for this study is from a 2017 study known as the “Identity Attachment Project.” The attachment dimensions and identity styles will be the
independent variables. The internalizing behaviors (depression and generalized anxiety disorder) will be the dependent variables.

The present study builds on the existing literature because while previous studies have explored the rates of internalizing behaviors during emerging adulthood, most have attributed this relationship to other factors such as the feelings of isolation that may arise during emerging adulthood or stress from taking on more adult responsibilities (Arnett, 2015). None have sought to explore the influence of identity exploration intertwining with attachment dimensions on internalizing behaviors during emerging adulthood. Additionally, the relationship between the predictors and the outcomes of the present study have not been examined within the context of a dating relationship. Therefore, it was examined whether these variables can work together to explain internalizing behaviors, specifically depression and generalized anxiety disorder within the context of a dating relationship. Given that emerging adulthood is a period of identity exploration, particularly within the dating context, it is critical to understand how the noted above predictors can individually and collectively influence internalizing behaviors during this developmental period.
Emerging Adulthood

Emerging adulthood is a period when people can no longer be considered adolescents since they have more adult responsibilities but are still not considered mature, self-actualized adults. These individuals are still exploring their identity in various areas such as romance, work, and career aspirations (Arnett, 2000). The age range of emerging adults falls between the ages of 18-29 (Arnett, 2015). Some individuals consider this to be a beneficial period of life because it allows these emerging adults to experience a period of prolonged exploration. This means that individuals in this stage of life have additional time after adolescence to explore their identity and continue to learn about themselves (Arnett, 2000, 2015).

Emerging adulthood is a period ripe with opportunities, but it can be filled with uncertainty, and many are frightened by the prospect of being on their own while carving out the foundation of their adult life. The result of this conflict is high rates of depression and anxiety. In the United States, 6% of Americans between the ages of 18-29 have reported experiencing symptoms that fit a diagnosis of major depression (Arnett, 2015). Depressed mood is even more common than major depression, with 32% of emerging adults indicating that they often feel depressed (Arnett, 2015). Approximately 12-18% of 18–24-year-olds in the United States also reported symptoms that merited the diagnosis of an anxiety disorder (Arnett, 2015).
Specifically, in one study it was reported that although incidence rates of anxiety disorders are highest in childhood and adolescence, it was found that there were recurrences of anxiety disorders in emerging adulthood (Essau, et al., 2017). People often wonder why emerging adults experience high levels of anxiety and/or depression since emerging adulthood is often viewed as a period of self-discovery and meaningful experiences. One explanation is because emerging adults are worried about managing their lives on their own as well as questioning who they are and where they belong in the world (Arnett, 2015).

Research indicates that the emerging adults of today are quite different from those of previous time periods. The emerging adults in the United States are experiencing milestones associated with adulthood later than other time periods. In a 2016 report by the United States Census Bureau, it was revealed that most young adults in 2005 were living independently in their own home and this was the predominant arrangement in 35 different states. By 2016, this number dropped from 35 to just 6 states where this was the predominant living arrangement among young adults (Vespa, 2017). Emerging adults are also delaying marriage longer than in other time periods in the United States. According to Horowitz (2020), in 1995 58% percent of young adults were married and this number dropped to 53% by 2017. During this same period, the percentage of adults ages 18 to 44 who had lived with a non-married partner rose to 59% (Horowitz, 2020).

Through the lens of emerging adulthood, it may be that young adults are delaying marriage so that they can continue to have these identity building experiences and enjoy the extended period of identity exploration within the romance domain.
During this period, emerging adults continue to build their identity within the domain of romance (Arnett, 2015). Romantic exploration in emerging adulthood is more serious than in adolescence since there is less focus on shared recreation and more focus on shared emotional intimacy (Arnett, 2000; Brown, 1999; Roscoe, Diana, & Brooks, 1987). By contrast, adolescent romantic exploration can be described as more focused on exploring physical intimacy (e.g., kissing, sexual touching, and sexual engagement) and the novelty of new experiences (Siegel, 2013). Exploring a dating identity often involves examining personal values, beliefs, and philosophies, as well as considerations about what it truly means to be in a relationship with another person (McElwain, Kerpelman, & Pittman, 2015). Building intimacy through dating is also potentially beneficial because aspects that gradually but slowly build intimacy have been associated with less engagement in risky sexual behaviors (McElwain, et al., 2015; Saint-Eloi Cadely, Finnegan, Spears, & Kerpelman, 2020).

The majority of emerging adults are less likely to be married or to be in a committed relationship (Arnett, 2000). This is beneficial for research purposes because observing the responses of individuals that are in relationships that are still maturing could potentially yield a greater chance to observe the formation of new behaviors and possible identity changes. Researchers would have the opportunity to examine the formation of a dating identity as well. Additionally, romantic exploration such as dating can provide some of the first opportunities for physical and emotional intimacy (Arnett, 2000). Individuals who desire a wide range of romantic, emotional, and sexual experiences are likely to be able to seek them out during emerging adulthood. Lack of parental surveillance, low number of adult
responsibilities, and the lessened emphasis on marriage makes emerging adulthood an ideal time to seek out these experiences (Arnett, 2000). These explorations are not always guaranteed to result in positive romantic experiences given that many individuals experience disappointment or rejection. Fortunately, emerging adults often participate in these explorations for their own sake and to cultivate a large quantity of life experiences. Therefore, dating can provide the opportunity for deeper identity development and moral reflection. This makes emerging adulthood a developmentally significant time period for identity exploration particularly within the dating context.

Identity

The formation of an identity is a significant milestone of adolescent development (Marcia, 1994). Erickson (1959) was one of the first major psychologists to discuss the period of identity development that takes place during adolescence. Erickson’s discussion of identity comes from his eight stages of psychosocial development, which occur in a specific sequence and progress over the course of the entire lifespan. Each stage is composed of three different factors. The first major factor is the development of the individual’s needs and abilities within the context of each given stage. The second factor is the environmental context in which the individual is developing. The environmental context determines whether or not there are demands and rewards relevant to each stage’s specific interests. The last factor is the sense of self that develops as a result of the experiences that an individual has been exposed to in their unique cultural background. The stages are designed to represent a sequential
measure of psychological growth that occurs as each individual tackles the obstacles of each life stage and resolve their conflicts (Marcia, 1994).

Elements of identity are slowly built throughout the early stages before reaching its specific focus in the fifth stage, identity vs role confusion. This stage takes place during adolescence, and identity in this context refers to a sense of who one is, in relation to their cultural context and others. Adolescents engage in all manner of identity explorations, which consists of role experimentation and a gradual process of making decisions about who they are (Pittman & Kerpelman, 2013). Role experimentation can be defined as an activity that involves an individual exploring and partaking in different social roles and interacting with the world around them (Erickson, 1959). An example of role experimentation would be dating because it involves exploring and engaging in social roles related to intimate relationships such as the role of a dating partner.

An aspect of the identity exploration process is the formation of identity styles. These styles were developed by Berzonsky (1990) and are defined as the individual differences in the way each individual processes the information and experiences that they derive from the significant events in their lifespan. In other words, these individual differences are known as styles and refer to the tactics that a person would employ in relation to identity specific tasks. These tactics are separated into three distinct types. The first is the informational style which emphasizes a person's openness to new experiences, information, and possibilities. The second is the normative style which is concerned with the level of guidance that a person receives from others and the high level of reliance one holds towards others throughout the identity exploration process.
The third and final is the diffuse-avoidant style, which is characterized by a disengagement with or complete avoidance of tasks in the identity exploration process (Berzonsky, 1990).

The type of identity style that a person employs is important because each style is associated with different outcomes in adolescence. For example, the diffuse-avoidant style has been found to be linked with maladaptive behaviors among adolescents (Kerpelman et al., 2012). Maladaptive behaviors are behaviors that can stop an individual from adapting to new circumstances. Specifically, it was found that the diffuse-avoidant style was associated with adolescents being more likely to develop conduct and hyperactivity disorders (Adams, 2001). The normative style is associated with a tendency to be unreceptive to information relating to core areas of self, such as values and belief systems (Berzonsky, 1992). Lastly, the informational identity style has been associated with anxiety reactions (e.g., uncomfortable reactions caused by significant stress) and an internal locus of control (when an individual attributes the cause of events in their life to their own choices and actions) (Berzonsky, 1992).

Although identity development is described to be prominent during adolescence, the overall process continues to be critical during emerging adulthood and can contribute to the well-being of emerging adults (Arnett, 2000). For example, among a sample of emerging adults, it was found that an information-oriented style relates to a more adaptive pattern of interpersonal behaviors whereas a normative and a diffuse-avoidant identity style both relate to a more maladaptive pattern of interpersonal behaviors (Smits et al., 2011). Within this context, maladaptive behaviors would refer to any kind of self-destructive behaviors such as substance abuse or avoiding healthcare
and adaptive behavior would be any type of behavior that does not sabotage the individual or their well-being (Adams, 2001). These results are consistent with the results published by Berzonsky (1992). Specifically, emerging adults who scored highly on the diffuse-avoidant style dealt with the emotional distress they experienced by utilizing wishful thinking and emotional distancing. This enabled them to deal with their problems without directly confronting the source of their distress (Berzonsky, 1992).

**Attachment Theory**

Attachment Theory revolves around the inclination to form strong emotional bonds of intimacy with others. This theory was originally developed by John Bowlby to help explain all the different kinds of emotional duress and personality dysfunctions (Bartholomew, 1990). This theory identifies an organized behavioral system known as the attachment system that is designed to maintain proximity to caretakers as a means of ensuring protection from danger. This system is most likely to activate during feelings of duress such as fear and anger. In such cases, the infant will exhibit attachment behaviors which are behaviors designed to reestablish contact with the caretaker (Bartholomew, 1990). The quality of this attachment relationship is an important indicator of the child’s style of social interaction and emotional regulation.

Developing a secure attachment is incredibly important because an insecure attachment can lead to detrimental outcomes in adulthood (Bartholomew, 1990; Brennan, Clark, & Shaver, 1998). The development of a secure attachment can be considered the key function of attachment theory, since Bowlby was primarily interested in how these attachments help individuals self-regulate during times of emotional distress and assist individuals in developing into healthy, well-adjusted adults. Later on,
Bowlby’s ideas were expanded by other theorists, so that the attachment system can be thought of as an ongoing system that works at a constant rate in order to maintain security, rather than a homeostatic one that is only activated under certain conditions (Bartholomew, 1990).

As part of this expansion process, Ainsworth conducted research experiments to properly evaluate the individual differences between the various levels of felt security, of which the most prominent was the Strange Situation (Bartholomew, 1990). The procedure involved placing infants in a room and initiating periods of contact, isolation, or reunion with their designated caretakers to study the infant’s reaction to their caretaker under the various scenarios (Bartholomew, 1990). From this, Ainsworth was able to identify three patterns of behavior in the infants: secure attachment, anxious-resistant attachment, and avoidant attachment. In the Strange Situation, children who were identified as securely attached would become distressed when their parents left, but nevertheless explored their environment in absence of their parents and sought to be comforted by them upon their return. Children who were classified as anxious-resistant exhibited the same distressed behavior as secure children when their parents left the room. However, when the parents returned, these children were difficult to calm down and seemed conflicted about their needs. These children wished to be comforted but also appeared to want to punish their parents for leaving. Children classified as avoidant differed significantly from secure or anxious-resistant children. Unlike the former two, avoidant children showed no signs of distress upon the parent leaving the room and avoided contact with them when they returned (Bartholomew, 1990).
Later work done by researchers Hazan and Shaver suggested that people beyond the primary caretaker could act as attachment figures and the bonds between romantic partners is part of the same behavioral system of attachment that creates early attachment bonds with caretakers (Fraley, 2010). In order to measure the individual differences between attachment behaviors in adults, Hazan and Shaver created a questionnaire designed to help identify these differences. These differences are typically known as attachment styles. These adult attachment styles initially adhered to the same three category format as Ainsworth’s description of attachment patterns in infancy. However, their format was eventually expanded into four categories (secure, dismissive, fearful, and preoccupied) based on Bowlby’s previous analyses of internal working models of self and others (Mikulincer & Shaver, 2014). Additionally, Hazan and Shaver along with Kelly Brennan identified two dimensions of adult attachment patterns: adult attachment anxiety and adult attachment avoidance (Fraley, 2010).

Adult attachment anxiety is defined as the fear of rejection or abandonment and adult attachment avoidance is the fear of intimacy or discomfort with closeness (Wei, et al, 2005). Adults who score high on anxiety are more preoccupied with the availability of their partners whereas low scoring adults are less concerned (Fraley, 2010). Individuals who have high levels of avoidance tend to avoid depending on or opening themselves up to others whereas individuals with lower levels of avoidance are more comfortable with these tasks. Children who did not have caregivers consistent in emotional availability are likely to suffer from adult attachment anxiety or adult attachment avoidance as adults (Bartholomew, 1990; Hazan & Shaver, 1987). An individual’s adult attachment style is also important because it can lead to good or poor
outcomes within the context of a romantic relationship. For example, previous literature has shown that those who have dismissive or fearful (falls within the avoidant dimension) or preoccupied (falls within the anxious dimension) attachment styles are usually less satisfied and secure within their relationship (Goodboy & Bolkan, 2011). Additionally, among young adults, these dimensions have been positively associated with emotional difficulties such as depression and anxiety and interpersonal issues such as high levels of loneliness (Wei et al., 2005).

**Connection between Identity Styles and Attachment Dimensions**

Attachment dimensions and identity styles can work together since both models categorize an aspect of psychosocial development. Attachment dimensions categorize the various forms of interpersonal relationships and identity styles categorize the manner in which individuals process information gathered from interacting with the environment. In a cross-sectional study among a large sample of adolescents, it was found that identity styles predicted variance in the avoidance and anxiety dimensions (Kerpelman et al., 2012). Specifically, the informational and diffuse-avoidant styles were positive predictors of the anxiety dimension, whereas the normative style was a negative predictor of the anxiety dimension. For the avoidant dimension, the informational style was a negative predictor, the diffuse-avoidant style was a positive predictor, and the normative style was unrelated to avoidance. Kerpelman et al. (2012) also examined the paths from the attachment dimensions to the identity styles and it was found that both attachment dimensions predicted variance in all three of the identity styles. Specifically, the avoidant dimension negatively predicted the informational and normative styles and also positively predicted the diffuse-avoidant
identity style. For the anxious dimension, both the informational and diffuse-avoidant styles were positively predicted whereas the normative style was negatively predicted by this dimension. These findings demonstrate that the attachment and identity processes are intertwined, potentially influencing each other during adolescence.

The intersection of insecure attachments and negative identity processes could potentially increase the onset or the severity of internalizing problems, particularly within the context of romantic relationships. For example, previous studies have shown that insecure attachment dimensions were related to physical dating aggression and posttraumatic stress (Henderson et al., 2005; Sandberg et al., 2010; Yarkovsky & Fritz, 2014) and the diffuse-avoidant identity style has been associated with psychological dating aggression (Saint-Eloi Cadely, Kerpelman, & Pittman, 2018). Specifically, Saint-Eloi Cadely et al. (2018) indicated that the diffuse-avoidant identity style was positively related to using psychological dating aggression and the anxious dimension contributed to difficulty using conflict management in romantic relationships (i.e., more use of psychological dating aggression). High scores on the informational identity style were also related to less perpetration of psychological dating aggression. Moreover, Saint-Eloi Cadely et al. (2018) also reported that both the informational and normative identity styles intertwined with the avoidant attachment dimension to influence lower reports of perpetrating psychological dating aggression.

**Research Questions and Hypotheses**

1st Research Question: Are identity styles related to internalizing behaviors?
Hypothesis 1: The diffuse-avoidant identity style will be positively associated with internalizing behaviors. The informational identity style will be negatively associated with internalizing behaviors.

Theoretical Explanation: Individuals who have an informational identity style are more likely to seek new information or treatment should they suffer from anxiety and/or depression. Diffuse-avoidant individuals are less likely to seek help because they would prefer to avoid their issues rather than confront them directly. Normative individuals are more likely to seek help from a significant other due to their need for guidance received from others. However, they are also more likely to avoid treatment if they are guided by negative influences. Thus, a hypothesis was not made for this identity style.

2nd Research Question: Are both attachment dimensions related to higher rates of internalizing behaviors?

Hypothesis 2: Both the anxious and avoidant dimensions will be associated with greater internalizing behaviors.

Theoretical Explanation: Individuals who are anxiously attached fear the demise of the relationship and those who are avoidant will not make the effort needed to sustain the relationship; such could relate to higher levels of internalizing behaviors such as depression and/or anxiety.

3rd Research Question: How do identity styles and insecure attachment styles work together to influence internalizing behaviors?

Hypothesis 3: The diffuse-avoidant identity style interacting with either the anxious or avoidant attachment dimensions will be related to much greater
internalizing behaviors. The informational identity style interacting with the anxious or avoidant attachment will be related to less internalizing behaviors.

Theoretical Explanation: Previous studies have shown that both insecure attachment dimensions are associated with greater emotional difficulties (Mikulincer, Shaver & Pereg, 2003). Additionally, usage of a diffuse-avoidant identity style is associated with disengagement or avoidance regarding identity related issues, which is also related to emotional difficulties (Berzonsky, 1992). As such, it is expected that the interaction between the diffuse-avoidant identity style and anxious or avoidant attachment styles would be related to a greater rate of internalizing behaviors. In contrast, individuals with an informational identity style are more likely to seek out new information, which would lead them to seek out help with their problems. Thus, an informational identity style may buffer the effects of either insecure attachment dimensions on internalizing behaviors. No hypothesis was made for the normative identity style given that such was not made for its direct association with internalizing behaviors.
CHAPTER 3

METHODS

Participants

The participants for this cross-sectional study were derived from a 2017 study known as the “Identity Attachment Project”, which was supported by the College of Health Sciences at the University of Rhode Island. The goal of this study was to collect information about the communication patterns, personality attributes, and perceptions of romantic relationships of college students. Each of the participants were provided with a $5.00 gift card to Starbucks as an additional benefit for participating in the study. The original sample consisted of 560 participants from the University of Rhode Island. One participant was removed because he/she was below the required age to participate in this study \( n = 1 \), another was excluded because they identified as other in terms of sex \( n = 1 \), and others were excluded due to their chronological age being beyond the emerging adulthood criterion of 18-29 years old \( n = 5 \). Additionally, several participants were removed because they had never been in a dating relationship \( n = 45 \). Other participants were removed because they did not provide data on at least one of the variables of interests to this study \( n = 54 \). Several other participants were removed because they were either cohabitating, engaged, or already married to their significant other \( n = 16 \). Thus, the analysis sample was 438 students who provided data relating to a current or previous dating relationship.

The education levels of the participants were as follows: 23.7\% \( n = 104 \) were Freshman, 29.5\% \( n = 129 \) were Sophomores, 24.9 \% \( n = 109 \) were Juniors, 19.9\% \( n = 87 \) were Seniors, and 2.1\% \( n = 9 \) were other. Approximately 15.3\% \( n = 67 \) of
the participants were the first in their family to go to college. Approximately 91.8% were female (n = 402), 6.8% were male (n = 30), and 1.4% (n = 6) identified as non-binary. The mean age of the college students that were surveyed is 20 years old (M = 19.84; SD = 1.317; Age range = 18-28 years old). Approximately, 82.2% identified as White/European American (n = 360), 8.2% as Hispanic/Latino (n = 36), 5.7% as Black/African American (n = 25), 1.8% as Asian American (n = 8), 0.2% as Native American (n = 1), and 1.8% as Other (n = 8). Regarding sexual orientation, 88.6% identified as Heterosexual/Straight (n = 388), 6.2% as Bisexual (n = 27), 2.1% as Lesbian (n = 9), 1.1% as Gay (n = 5), and 2.1% as Other (n = 9).

Measures

Identity Styles

The Identity Style Inventory Version 5 (ISI-5; Berzonsky et al., 2013) was used to assess the various identity styles. The measure contained 36 items that consisted of statements that asked how the participants saw themselves and focused on processing identity relevant information. One example item of the informational identity style is “When making important decisions, I like to spend time thinking about my options.” An example item of the normative identity style is “I automatically adopt and follow the values I was brought up with.” Lastly, an example item of the diffuse-avoidant identity style is “I am not really thinking about my future right now, it is still a long way off.” Nine items were related to identity commitment which was not needed for the purposes of this study. Therefore, a total of 27 items were used, with nine items dedicated to each identity style. The participants rated each item on a 5-point Likert scale and the scores ranged from 1-5. The scores were coded as 1 = not like me at all and 5 = very much like
Mean composite scores were created for each of the three identity styles by calculating the average of the items per each identity style. Cronbach alphas were calculated for the informational identity style ($\alpha = .846$), the normative identity style ($\alpha = .779$), and the diffuse-avoidant identity style ($\alpha = .806$).

**Attachment Dimensions**

The *Experiences in Close Relationships* scale (Brennan et al., 1998) was used to assess insecure attachment dimensions. This measure consisted of 36 items (19 items for the avoidant dimension and 17 items for the anxious dimension) that consisted of statements which measured how respondents felt about romantic relationships. For example, one item for the avoidant dimension was “*I prefer not to show a partner how I feel deep down.*” An example of the anxiety dimension was “*I worry about being abandoned.*” The participants rated each of these items on a 5-point Likert scale and the scores ranged from 1 to 5. The scores were coded as $1 = \text{strongly disagree}$ to $5 = \text{strongly agree}$. Mean composite scores were created for the anxious attachment and the avoidant attachment by averaging the items that related to each dimension. Cronbach alphas were calculated for the anxious attachment dimension ($\alpha = .911$) and the avoidant attachment dimension ($\alpha = .940$).

**Anxiety**

The *Generalized Anxiety Disorder Scale* (GAD; Spitzer et al., 2006) was used to assess anxiety. The GAD scale measure consisted of seven items that consisted of statements designed to measure feelings of anxiety. The participants rated each item on a 4-point scale and the items were questions or statements asked to each of the participants regarding how often they had been bothered by the issues listed within the
previous 2 weeks (e.g., “Feeling nervous or on edge”). The scores ranged from 0 to 3. The scores were coded as 0 = not at all to 3 = nearly every day. A mean composite score for anxiety was created based on the mean of all 7 items. A Cronbach alpha for anxiety was calculated ($\alpha = .940$).

**Depression**

The *Center for Epidemiologic Studies Depression Scale* was used to assess depression (Eaton, Smith, Ybarra, Muntaner, & Tien, 2004). This consisted of 20 items designed to measure feelings of depression. The participants rated each item on a 5-point scale and the items were statements that listed symptoms that participants may have felt within the previous week. (e.g., “I could not shake off the blues”). The main scores ranged from 0 to 4. The scores were coded as 0 = not at all or less than one day to 4 = nearly every day for two weeks. A mean composite score was created for depression by averaging all 20 items. A Cronbach alpha for depression was calculated ($\alpha = .960$).

**Covariates**

Analyses controlled for emerging adults’ identity exploration, specifically within the dating context. Given that identity exploration can be domain-specific, it is important to consider identity exploration within the domain in question (Berzonsky et al., 2013). Thus, it was necessary to control for whether the participants were exploring their identity in a dating context, since the focus of this study was students in a dating relationship. Additionally, dating identity exploration was related to both outcomes: anxiety ($r = .170, p < .001$) and depression ($r = .136, p < .01$) (See Table 2). Thus, dating identity exploration was examined as a covariate.
The *Utrecht-Management of Identity Commitments Scale* was used to assess dating identity exploration (Crochetti, Schwartz, Fermani, & Meeus, 2010). This measure consisted of five items designed to measure participants' exploration of their identity within the context of their previous or current dating relationship. Each item was a statement and participants rated whether the statement matched their views. For example, one item was “*I often reflect on my dating relationship.*” The participants rated each item on a 5-point scale and the scores ranged from 1-5. The scores were coded as 1 = *completely untrue* to 5 = *completely true*. A mean composite score for dating identity exploration was created by averaging the five items related to dating identity exploration. A Cronbach alpha was calculated for this variable (α = .705).

Most of the demographics were excluded because they had no significant relationships to the outcome variables, but sexual orientation was an exception to this. Sexual orientation was related to depression (*r* = .247, *p* < .001) as well as generalized anxiety disorder (*r* = .224, *p* < .001) (see Table 1). This was the only demographic that was related to both outcome variables. Thus, sexual orientation was examined as a control variable. A new variable was created to represent and dichotomize sexual orientation. Participant’s reports of sexual orientation were recoded as follows: 0=heterosexual/straight (*n* = 388) and 1=LGBTQ (*n* = 50).

**Plan of Analysis**

Analyses were conducted in SPSS version 27. It was found that both outcomes, depression and generalized anxiety disorder were skewed, thus these variables were transformed to normalize the distribution using a square root transformation. The mean, standard deviation, and skewness of the outcome variables before being transformed are
as follows: depression \((M = .8225; SD = .895; \text{Skewness} = 1.339)\) and anxiety \((M = .8236; SD = .790; \text{Skewness} = 1.083)\). Two multiple regression analyses were conducted to evaluate whether the identity styles and both attachment dimensions were related to depression and generalized anxiety disorder. Specifically, two models were created to address the first two hypotheses (one for each hypothesis). The first model had depression as its outcome and the second model had generalized anxiety disorder as its outcome (see Figures 1 and 2). Both models had seven predictors and one outcome. The seven predictors for both models were as follows: (a) diffuse-avoidant identity style, (b) informational identity style, (c) normative identity style, (d) anxious attachment dimension, (e) avoidant attachment dimension, (f) dating identity exploration, and (g) sexual orientation.

For the third hypothesis, a moderation analysis was conducted to determine whether each identity style can work as a third variable that influences the strength of the relationship between the insecure attachment dimensions and both internalizing behaviors. Therefore, an interaction term was created for each identity style interacting with each attachment dimension while controlling for the remaining predictors. A total of six interaction terms per each model were created. If significant, interaction terms were plotted based on one standard deviation above and below the mean to indicate the high and low values of the interacting variables.
Correlations between predictors and outcomes

Pearson correlation analyses were fit across the constructs (predictors and outcomes). Results showed that the diffuse-avoidant identity style was negatively correlated with the informational identity style ($r = -.146, p < .01$) but positively correlated with the normative identity style ($r = .124, p < .01$). The informational identity style was negatively correlated with the normative identity style ($r = -.094, p < .05$). Dating identity exploration was positively correlated with the informational identity style ($r = .131, p < .01$). The avoidant attachment dimension was negatively correlated with the informational identity style ($r = -.117, p < .01$), positively correlated with the diffuse-avoidant identity style ($r = .351, p < .001$), and negatively correlated with dating identity exploration ($r = -.218, p < .001$). The anxious attachment dimension was positively correlated with the normative identity style ($r = .130, p < .01$), the diffuse-avoidant identity style ($r = .378, p < .001$), dating identity exploration ($r = .311, p < .001$), and the avoidant attachment dimension ($r = .167, p < .001$).

Depression positively correlated with the diffuse-avoidant identity style ($r = .306, p < .001$), dating identity exploration ($r = .136, p < .01$), the avoidant attachment dimension ($r = .251, p < .001$), and the anxious attachment dimension ($r = .430, p < .001$). Anxiety positively correlated with the diffuse-avoidant identity style ($r = .260, p < .001$), dating identity exploration ($r = .170, p < .001$), the avoidant attachment dimension ($r = .184, p < .001$), the anxious attachment dimension ($r = .444, p < .001$), and depression ($r = .753, p < .001$) (see Table 2).
Sexual orientation was negatively related to the normative identity style ($r = -.161, p < .001$) but positively related to the informational identity style ($r = .112, p < .05$), anxiety ($r = .224, p < .001$), and depression ($r = .247, p < .001$).

**Multiple regression analyses findings**

Two multiple regression analyses were conducted to examine whether the identity styles and attachment dimensions were related to depression and generalized anxiety disorder while controlling for dating identity exploration, and sexual orientation. One analysis included depression as the outcome variable and the other analysis included generalized anxiety as its outcome variable.

For the first analysis, a significant regression equation was found ($F(7, 430) = 24.557, p < .001$) with an adjusted $R^2$ of .274, indicating that 27% of the variance in depression is accounted for by the linear combination of the identity styles, attachment dimensions, dating identity exploration, and sexual orientation. Results showed that the diffuse-avoidant identity style ($B = .093, SE = .034, \beta = .127, p < .01$), avoidant attachment ($B = .085, SE = .029, \beta = .132, p < .01$), anxious attachment ($B = .234, SE = .030, \beta = .369, p < .001$), and sexual orientation ($B = .319, SE = .068, \beta = .196, p < .001$) were all positively related to depression. Meaning that those who had higher scores on the diffuse-avoidant identity style, anxious attachment, avoidant attachment, and who identified as a sexual minority had a higher depression score. Lastly, the normative identity style was negatively related to depression (results were approaching significance) ($B = -.063, SE = .033, \beta = -.081 p < .10$). In other words, those who had a higher score on the normative identity style had a lower depression score (see Table 3).
For the second analysis, a significant regression equation was found \( F(7, 430) = 24.449, p < .001 \) with an adjusted \( R^2 \) of .273, indicating that 27% of the variance in generalized anxiety disorder is accounted for by the linear combination of the identity styles, attachment dimensions, dating identity exploration, and sexual orientation. Results showed that generalized anxiety disorder was positively related to the following predictors: avoidant attachment \( (B = .061, SE = .028, \beta = .100, p < .05) \), anxious attachment \( (B = .259, SE = .028, \beta = .431, p < .001) \), and sexual orientation \( (B = .245, SE = .064, \beta = .159, p < .001) \). Meaning that those who had higher scores on the anxious attachment, avoidant attachment, and who identified as a sexual minority had a higher generalized anxiety score. The normative identity style was negatively related to anxiety \( (B = -.066, SE = .031, \beta = -.089, p < .01) \), meaning that those who had higher scores on the normative identity style had a lower generalized anxiety score (see Table 3). On an important note, the informational identity style was positively related to anxiety with the exclusion of sexual orientation from the model \( (B = .064, SE = .032, \beta = .086, p < .05) \). Meaning that without controlling for sexual orientation, higher scores on the informational identity style was related to a higher generalized anxiety score.

**Interaction Terms**

A total of six interaction terms per each model were created to determine whether identity styles influenced the relationship between the insecure attachment dimensions and both internalizing behaviors (generalized anxiety disorder and depression). Each identity style and both attachment dimensions were centered before they were combined to create an interaction term to avoid multicollinearity problems. Of the six interaction terms, only the combination of the informational identity style and the avoidant
attachment dimension was related to both generalized anxiety disorder and depression. The significant interaction for the informational identity style and the avoidant attachment dimension was plotted at 1 SD above and below their means to indicate high and low values of the interacting variables. Specifically, individuals showing high levels of an informational identity style and an avoidant attachment style indicated higher levels of generalized anxiety disorder ($B = .093$, $SE = .040$, $\beta = .099$, $p < .05$) as well as higher levels of depression ($B = .097$, $SE = .042$, $\beta = .097$, $p < .05$) (see Figures 3A and 3B). For exploratory purposes, interaction terms were also fitted for dating identity exploration interacting with both attachment dimensions to examine whether exploring one's identity in the dating context buffers the influence of both attachment dimensions on generalized anxiety disorder and/or depression. However, results showed that these interactions were non-significant.
CHAPTER 5
CONCLUSION

The present study sought to examine the relationship between identity styles, attachment dimensions, and if, as well as how these two factors work together to influence internalizing behaviors in emerging adulthood within the dating context. For the first regression analysis, findings indicated that the diffuse-avoidant identity style, avoidant attachment, and anxious attachment were positively related to depression. This means that individuals who had higher scores on these variables had a higher depression score. As for the second analysis, findings indicated that both the avoidant and anxious attachment dimensions were positively associated with generalized anxiety disorder. Meaning individuals who scored higher on these variables had a higher generalized anxiety disorder score. The normative identity style was negatively associated with generalized anxiety disorder and depression, meaning that those who had higher scores on the normative identity style had a lower generalized anxiety disorder and depression score. A total of six interaction terms per each model were created and among them, only the combination of the informational identity style and the avoidant attachment dimension was significantly associated with generalized anxiety disorder as well as depression. Results from plotting the interaction term at 1 SD above and below the mean indicated that individuals showing high levels of an informational identity style and an avoidant attachment style had higher levels of generalized anxiety disorder as well as higher levels of depression.

The results from the multiple regression analyses partially supported the first hypothesis of the present study. Previously it had been hypothesized that the diffuse-
avoidant identity style would be positively associated with internalizing behaviors because they are less likely to seek any form of solution to their problems and may even actively avoid them. This is consistent with Berzonsky’s (1992) original text on identity styles and their coping strategies which explains that individuals with a diffuse-avoidant identity style are known to engage in emotion-focused coping mechanisms which are known to be maladaptive and debilitating. The findings from the first linear regression are consistent with this hypothesis since the diffuse-avoidant identity style positively predicted depression.

It was also hypothesized that the informational identity style would be negatively associated with internalizing behaviors because those who have an informational identity style are more likely to get assistance from others. However, this part of the hypothesis was not supported because the informational identity was positively associated with generalized anxiety disorder (this was found when not controlling for sexual orientation) but not depression. It may be possible that the first result was found because individuals who have an informational identity style actively seek out new information and this process can potentially cause feelings of anxiety (Berzonsky, 1992). As mentioned previously, emerging adulthood is a set of time that involves a lot of identity exploration and part of that experience is experimenting with dating relationships (Arnett, 2000, 2015). Although these activities are common for individuals at this stage, it can also cause additional anxiety and stress (Berzonsky, 1992). Additionally, this finding is consistent with a previous study indicating that the informational identity style was related to feelings of anxiety within the romance domain (Kerpelman et al., 2012).
An additional explanation as to why the informational identity style resulted in more generalized anxiety disorder in this sample is because the sample was predominantly women and within the context of a dating relationship, women may experience more generalized anxiety disorder. Previous studies showed there are gender-based differences in the way that the mental health and wellbeing of individuals are impacted by romantic relationships. One study showed that the mental health of women who were in a non-marital dating relationship were more negatively affected by current romantic relationships and breakups than men (Simon & Barrett, 2010). Additionally, previous studies have shown that women experience more anxiety on average than men. For example, it was found that women of all ages have more subtypes of anxiety disorders compared to men (Merikangas et al., 2009). Additionally, adolescent and emerging adult women on average endorse higher scores on the informational identity style relative to adolescent and emerging adult men (Saint-Eloi Cadely, Pittman, Kerpelman, & Adler-Baeder, 2011). The gender-based differences on the impact of romantic relationships on mental health and the naturally higher rate of anxiety disorders and higher endorsements of an informational identity style could explain the significant associations between the informational identity style and generalized anxiety disorder found in this sample.

Results also showed that the normative identity style was negatively associated with both depression and generalized anxiety disorder. In other words, those who had a higher score on the normative identity style had lower depression and generalized anxiety disorder scores. This suggests that the normative identity style relates to less depression and anxiety the way the informational identity style had originally been expected to. A
theoretical explanation for this may lay within the known behaviors of those with a normative identity style. As mentioned earlier, a normative identity style abides by the expectations of others (Berzonsky, 1992) and it is plausible that they are much more likely to do so in a romantic relationship. A romantic partner who serves as a positive influence may resort to less anxiety and depression.

The findings from both linear regressions showed that both anxious and avoidant attachments were positively related to generalized anxiety disorder, as well as depression. These findings support the second hypothesis that both attachment dimensions would be associated with greater internalizing behaviors. This is also consistent with results from previous studies which also indicated that these dimensions were associated with internalizing behaviors such as anxiety and depression, particularly among young adults (Wei et al., 2005). This suggests that the presence of an insecure attachment style can influence the internalizing behaviors that can emerge during the emerging adulthood period. Individuals who are avoidant are likely to display a fear of intimacy or avoid things that cause them great discomfort. Within the context of dating relationships, for individuals who are avoidant, their fears manifest in the form of a reluctance to discuss subjects that involve personal flaws or any tensions stemming from the relationship. Individuals who are avoidant may also outright try to inhibit or suppress thoughts that involve emotional vulnerability (Mikulincer & Shaver, 2007). By contrast, individuals who are anxious seek more emotionally fulfilling relationships, but this desire can lead to overdependence on a relationship partner and the development of insecure behaviors designed to get the attention of their partner. Unfortunately, while these behaviors can have the desired effect on some partners, they can also encourage more aggressive
behaviors towards the relationship partner (Saint-Eloi Cadely et al., 2018). When left unchecked, these behaviors can lead to dysfunctions in the relationship, partner dissatisfaction, and ultimately a complete breakdown in the romantic relationship (Mikulincer & Shaver, 2007), which in turn could lead to feelings of anxiety.

Lastly, the third hypothesis was partially supported by the results of the moderation analysis by indicating that identity styles can indeed work with attachment dimensions in influencing internalizing behaviors among emerging adults in dating relationships. It was hypothesized that the diffuse-avoidant identity style interacting with the attachment dimensions would lead to greater internalizing behaviors and the informational identity style interacting with the attachment dimensions would lead to less of such behaviors. The informational identity style did work with an avoidant attachment style in predicting generalized anxiety disorder and depression. These findings are consistent with the results of previous studies that also had the informational identity style working in conjunction with an avoidant dimension to influence rates of psychological dating aggression (Saint-Eloi Cadely et al., 2018). However, it was not in the direction that was expected and the informational identity style interacting with the avoidant attachment dimension was the only interaction term to be significant. When plotted, it revealed that those who scored high on this interaction had higher scores of generalized anxiety disorder and depression. Therefore, the results were the exact opposite of what had originally been expected of the third hypothesis.

One possible explanation for this finding is the imbalanced ratio of women to men in the research sample. The population consisted of mostly women and as mentioned previously there are gender-based differences in the manner and extent to which an
individual’s overall wellbeing is impacted by relationships. Women on average experience more anxiety disorders overall, particularly within the context of romantic relationships relative to men (Merikangas et al., 2009; Simon & Barrett, 2010). Additionally, young women on average report higher scores on the informational identity style compared to young men (Saint-Eloi Cadely et al., 2011) which was found to be associated with generalized anxiety disorder in the present study’s sample. Lastly, anxiety was found to be highly correlated with depression in the present study’s sample, further supporting the case for similar results across both models. When combined with the influence of the avoidant dimension on internalizing behaviors, this could potentially lead to increased rates of depression and generalized anxiety disorder.

In summary, these findings contribute to the literature in the following ways. First this study provides some valuable insights into some of the factors that influence the rates of internalizing behaviors and how these factors interact to influence such behaviors. Results of this study also help further current understanding of how identity styles influence the rate of internalizing behaviors in emerging adulthood. New information such as this can help bridge some of the gaps within the current literature by providing an example of how attachment styles and identity styles work together to influence the rate of internalizing disorders within a sample of emerging adults in a dating context.

Limitations & Future Directions

One of the limitations of this research study was its design. As a cross-sectional study, the present study provides much relevant information, but cross-sectional limits cannot discern the temporal order of the relationships. Another limitation of the present study is the sample used in the analysis. This sample was predominantly made up of
Caucasian and heteronormative college women with very little racial, ethnic, and gender diversity. As such, it's plausible that the findings are limited to the experience of being an emerging adult and juggling the responsibilities associated with being a young woman in an academic environment. Given that the sample population for this study was majority female, the overall gender diversity of the population was weak and should be considered as a limitation of this study. Another limitation is the small variance of both outcome variables, their low means suggest that on average the sample population reported little generalized anxiety disorder and depression. This could also serve as an explanation for why some of the associations in this study were non-significant.

There are also other potential factors that could not be explored due to the limitations of the dataset. For example, one potentially unexplored factor is the possible lack of stability of the romantic relationships the participants were in at the time of the study. All the participants were within the age range of 18-29, which is the age group of emerging adults, and it is possible that the dating relationships the participants were involved in may not have been as stable as the relationships of older adults due to their lack of experience in dating. As mentioned previously, emerging adulthood is a time period filled with experimentation, worry, and opportunities to explore one’s identity before embracing the trials of true adulthood (Arnett, 2000; 2015). Therefore, it is possible that the relationships the participants were in at the time of the study were not completely solid and the lack of stability could have influenced the way they answered the surveys.

Future directions for this study should be to seek a diverse sample that is more balanced in terms of race and gender, as well as examining the research questions.
longitudinally. There could also be other factors at play that were not previously considered such as pregnancy and hormonal imbalances due to childbirth, contraception, or postpartum depression. Women also experience higher levels of anxiety than men and these issues would be compounded by being in a high stress environment, such as pursuing a higher education at a major university (Merikangas et al., 2009; Simon & Barrett, 2010). As such, future research would be wise to pursue a gender-balanced sample, as well as seeking participants that do not have an education above the college level or those who pursued alternative career paths. Another way future researchers could expand on this would be to seek a sample population outside of the emerging adulthood age range because the participants within the current sample potentially lacked dating experience. All the participants within the current study were within the emerging adulthood age range, as such the current study lacks variety in terms of the age of the adults that were studied. Some age ranges that may be of some interest to future researchers are that of middle and late adulthood. Currently there is a lack of literature on the romantic relationships and dating experiences of these populations of adults (Connidis & Barnett, 2019).

Implications

This study was important because it is one of the few to examine how identity styles and attachment dimensions interact within the specific population of emerging adulthood. As noted earlier, emerging adulthood is a period of identity exploration, uncertainty about their place in the world, and how they can manage their lives as independent adults (Arnett, 2015). In this specific sample, the vast majority of the participants were within the age range of 18-29, college women, and in a dating
relationship that had not progressed to cohabitation, engagement, or marriage. The information gleaned from this research study can be used in university settings and contexts. For example, the information in this study could be used to create new therapeutic interventions to assist college-aged populations and understand new factors that need to be addressed such as the significance of romantic relationships, the process of identity development, and trials of emerging adulthood. These hypothetical interventions could take the form of mental health programs at major universities that utilize attachment research and methodology to create new coping mechanisms to help emerging adults deal with the mental health struggles associated with dating and identity exploration during the emerging adulthood time period such as anxiety and depression. Additionally, this new research could then be expanded to non-academic populations of emerging adults in addition to middle and older aged adults. This would be just as beneficial because of the lack of literature on the intimate ties, intimate experiences, and patterns of relationships of the aging population and non-academic emerging adults (Arnett, 2000, 2001; Conidis & Barnett, 2019).
Table 1. *Descriptive statistics and correlations between age, gender, sexual orientation, race, education level, college, anxiety, and depression (N = 438).*

|       | M   | SD  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|-------|-----|-----|----|----|----|----|----|----|----|----|
| 1. Age  | 19.8 | 1.317 |    |    |    |    |    |    |    |    |
| 2. Gender | 1.95 | .282 | -.010 |    |    |    |    |    |    |    |
| 3. Sexual Orientation | .114 | .318 | .009 | .095* |    |    |    |    |    |    |
| 4. Race  | .178 | .383 | .001 | -.079 | .152** |    |    |    |    |    |
| 5. Education Level | 2.47 | 1.117 | .854*** | .046 | -.061 | -.014 |    |    |    |    |
| 6. College | .15 | .360 | .021 | -.098* | .047 | .200*** | .008 |    |    |    |
| 7. Depression | .822 | .895 | -.058 | .051 | .247*** | .087 | -.073 | -.004 |    |    |
| 8. Anxiety | .824 | .790 | -.069 | .085 | .224*** | .006 | -.099* | -.024 | .753*** |    |

*Note.* Sexual orientation was dichotomized (0 = Heterosexual/straight, 1 = LGBTQ). Race was dichotomized (0 = White/European-Americans, 1 = Minorities). *p < .05, **p < .01, ***p < .001.
Table 2. Descriptive statistics and correlations between identity styles, dating identity exploration, attachment dimensions, sexual orientation, anxiety, and depression (N = 438).

|                       | M   | SD  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. Informational     | 2.85| .656|     |     |     |     |     |     |     |     |     |
| Identity Style       |     |     |     |     |     |     |     |     |     |     |     |
| 2. Normative         | 1.36| .658| -.094*|     |     |     |     |     |     |     |     |
| Identity Style       |     |     |     |     |     |     |     |     |     |     |     |
| 3. Diffuse-Avoidant  | 1.02| .707| -.146**| .124**|     |     |     |     |     |     |     |
| Identity Style       |     |     |     |     |     |     |     |     |     |     |     |
| 4. Dating            | 3.56| .693| .131**| .060| .052|     |     |     |     |     |     |
| Identity Exploration |     |     |     |     |     |     |     |     |     |     |     |
| 5. Avoidant          | 2.15| .802| -.117*| -.036| .351***| -.218***|     |     |     |     |     |
| Attachment           |     |     |     |     |     |     |     |     |     |     |     |
| 6. Anxious           | 2.81| .815| -.043| .130**| .378***| .311***| .167***|     |     |     |     |
| Attachment           |     |     |     |     |     |     |     |     |     |     |     |
| 7. Sexual            | .114| .318| .112*| -.161***| .064| .042| .022| .011|     |     |     |
| Orientation          |     |     |     |     |     |     |     |     |     |     |     |
| 8. Depression        | .822| .895| .001| -.041| .306***| .136**| .251***| .430***| .247***|     |     |
| 9. Anxiety           | .824| .790| .071| -.065| .260***| .170***| .184***| .444***| .224***| .753***|     |

*p < .05, **p < .01, ***p < .001
Table 3. Standardized and unstandardized parameter estimates for identity styles, attachment dimensions, dating identity exploration, and sexual orientation predicting anxiety and depression (N = 438).

|                      | Anxiety       |         | Depression    |         |
|----------------------|---------------|---------|---------------|---------|
|                      | B             | (SE)    | β             | B       | (SE)    | β     |
| (Constant)           | -.326*        | .162    | -.275         | .171    |         |       |
| Informational       | .052          | .031    | .069          | .019    | .033    | .024  |
| Identity Style       |               |         |               |         |         |       |
| Normative Identity   | -.066         | .031    | -.089*        | -.063   | .033    | -.081~|
| Style                |               |         |               |         |         |       |
| Diffuse Avoidant     | .045          | .033    | .065          | .093    | .034    | .127**|
| Identity Style       |               |         |               |         |         |       |
| Dating Identity      | .028          | .032    | .040          | .022    | .034    | .030  |
| Exploration          |               |         |               |         |         |       |
| Avoidant Attachment  | .061          | .028    | .100*         | .085    | .029    | .132**|
|                      |               |         |               |         |         |       |
| Anxious Attachment   | .259          | .028    | .431***       | .234    | .030    | .369***|
|                      |               |         |               |         |         |       |
| Sexual Orientation   | .245          | .064    | .159***       | .319    | .068    | .196***|

*p < .10, *p < .05, **p < .01, ***p < .001.
Figure 1. Hypothesized model of identity styles, attachment dimensions, dating identity exploration, and sexual orientation predicting depression ($N = 438$).
Figure 2. Hypothesized model of identity styles, attachment dimensions, dating identity exploration, and sexual orientation predicting anxiety (N = 438).
Figure 3. *Identity styles interacting with attachment dimensions predicting anxiety and depression.*

Points are plotted one standard deviation above and below the mean. Analyses controlled for dating identity exploration and sexual orientation (N = 438).
BIBLIOGRAPHY

Adams, G. R., Munro, B., Doherty-Poirer, M., Munro, G., Petersen, A. R., & Edwards, J. (2001). Diffuse–avoidance, normative, and informational identity styles: using identity theory to predict maladjustment. *Identity: An International Journal of Theory and Research*, 1, 307–320.

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480. doi: 10.1037/0003-066x.55.5.469

Arnett, J. J. (2001). Conceptions of the transition to adulthood: Perspectives from adolescence through midlife. *Journal of Adult Development, 8*(2), 133-143. https://doi.org/10.1023/A:1026450103225

Arnett, J. J., & Schwab, J. (2012). The Clark University Poll of Emerging Adults: Thriving, struggling, and hopeful. Worcester, MA: Clark University. Retrieved from http://www.clarku.edu/clark-poll-emerging-adults/

Arnett, J. J. (2015). *Emerging adulthood: the winding road from the late teens through the twenties*. New York: Oxford University Press.

Bartholomew, Kim. (1990). Avoidance of Intimacy: An Attachment Perspective. *Journal of Social and Personal Relationships, Vol.7*, 147-178.

Berzonsky, M. D. (1992). Identity style and coping strategies. *Journal of Personality, 60*(4), 771–788. https://doi.org/10.1111/j.1467-6494.1992.tb00273.x
Berzonsky, M. D., Soenens, B., Luyckx, K., Smits, I., Papini, D. R., & Goossens, L. (2013). Development and validation of the revised Identity Style Inventory (ISI-5): Factor structure, reliability, and validity. *Psychological Assessment, 25*(3), 893-904. doi:10.1037/a0032642

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult romantic attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46-76). New York: Guilford Press.

Connidis, I. A., & Barnett, A. E. (2019). *Family ties & aging*. Thousand Oaks, CA: SAGE Publications.

Crochetti, E., Schwartz, S. J., Fermani, A., & Meeus, W. (2010). The Utretch-Management of Identity Commitments scale (U-MICS): Italian validation and cross-national comparisons. *European Journal of Psychological Assessment, 26*(3), 172-186. DOI: 10.1027/1015-5759/a000024

Eaton, W. W., Smith, C., Ybarra, M., Muntaner, C., Tien, A. (2004). Center for Epidemiologic Studies Depression Scale: review and revision (CESD and CESD-R). In ME Maruish (Ed.). *The Use of Psychological Testing for Treatment Planning and Outcomes Assessment* (3rd Ed.), Volume 3: Instruments for Adults, pp. 363-377. Mahwah, NJ: Lawrence Erlbaum.

Erikson, E. H. (1959). Identity and the life cycle. New York, NY: W.W. Norton & Company, Inc.

Essau, C. A., Lewinsohn, P. M., Lim, J. X., Ho, M. R., & Rohde, P. (2018). Incidence, recurrence and comorbidity of anxiety disorders in four major developmental
stages. *Journal of Affective Disorders*, Volume 228, pp. 248–253.

https://doi.org/10.1016/j.jad.2017.12.014

Fraley, C. R. (2010). A Brief Overview of Adult Attachment Theory and Research. Retrieved December 10, 2017, from

https://internal.psychology.illinois.edu/~rcfraley/attachment.htm

Gerald R. Adams, Brenda Munro, Maryanne Doherty-Poirer, Gordon Munro, Anne-Mette R. Petersen & Joy Edwards (2001) Diffuse-Avoidance, Normative, and Informational Identity Styles: Using Identity Theory to Predict Maladjustment, *Identity: An International Journal of theory and Research*, 1:4, 307-320, DOI: 10.1207/S1532706XID0104_01

Goodboy, K., Bolkan, S., (2011), Attachment and the Use of Negative Relational Maintenance Behaviors in Romantic Relationships. *Communication Research Reports*, 28(4), 327-336, 10.1080/08824096.2011.616244

Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52(3), 511-524. https://doi.org/10.1037/0022-3514.52.3.511.

Henderson, A. J. Z., Bartholomew, K., Trinke, S. J., Kwong, M. J. (2005). When loving means hurting: An exploration of attachment and intimate abuse in a community sample. *Journal of Family Violence*, 20(4), 219-230. DOI: 10.1007/s10896-005-5985-y

Jensen, F. (2016). *Teenage brain*. Toronto: Harpercollins Canada

Juliana Menasce Horowitz, N. G. (2020, May 30). Views on Marriage and Cohabitation in the U.S. Retrieved from
Kerpelman, J. L., Pittman, J. F., Cadely, H. S.-E., Tuggle, F. J., Harrell-Levy, M. K., & Adler-Baeder, F. M. (2012). Identity and intimacy during adolescence: Connections among identity styles, romantic attachment and identity commitment. *Journal of Adolescence, 35*(6), 1427–1439. doi: 10.1016/j.adolescence.2012.03.008

Marcia, J. E. (1994). The empirical study of ego identity. In H. A. Bosma, T. L. G. Graafsm, H. D. Grotevant, & D. J. De Levita (Eds.), *Identity and development: An interdisciplinary approach* (pp. 67–80). Thousand Oaks, CA: Sage.

Merikangas, K. R., Nakamura, E. F., & Kessler, R. C. (2009). Epidemiology of mental disorders in children and adolescents. *Dialogues in Clinical Neuroscience, 11*(1), 7–20

McElwain, A. D., Kerpelman, J. L., & Pittman, J. F. (2015). The role of romantic attachment security and dating identity exploration in understanding adolescents sexual attitudes and cumulative sexual risk-taking. *Journal of Adolescence, 39*, 70–81. doi: 10.1016/j.adolescence.2014.12.005

Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion, 27*(2), 77–102. https://doi.org/10.1023/A:1024515519160
Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York: The Guilford press.

Mikulincer, M., & Shaver, P. R. (2014). Attachment and Emotion Regulation. *Attachment and Development*, 133-149. doi:10.4324/9780203783832-9

Pittman, J. F., & Kerpelman, J. L. (2013, May). A cross-lagged model of adolescent dating aggression attitudes and behavior: Relationship education makes a difference. *Published Proceeding*, Hawaii International Social Science Conference, Waikiki, HI.

Roscoe, B., Diana, M. S., & Brooks, R. H., 2nd (1987). Early, middle, and late adolescents’ views on dating and factors influencing partner selection. *Adolescence*, 22(85), 59–68.

Siegel, D.J. (2013). *Brainstorm: The power and purpose of the teenage brain*. New York: Penguin Putnam.

Saint-Eloi Cadely, H., Finnegan, V., Spears, E., & Kerpelman, J. L. (2020). Adolescents and sexual risk-taking: The interplay of constraining relationship beliefs, healthy sex attitudes, and romantic attachment insecurity. *Journal of Adolescence*, 84, 136-148. https://doi.org/10.1016/j.adolescence.2020.08.010.

Saint-Eloi Cadely, H., Kerpelman, J. L., & Pittman, J. F. (2018). Connections Among Identity, Attachment, and Psychological Dating Aggression During Adolescence. *Identity: An International Journal of Theory and Research*, 18(1), 44–59. doi: 10.1080/15283488.2017.1410158
Saint-Eloi Cadely, H., Pittman, J. F., Kerpelman, J. L., & Adler-Baeder, F. (2011). The Role of Identity Styles and Academic Possible Selves on Academic Outcomes for High School Students. *Identity, 11*(4), 267-288. doi:10.1080/15283488.2011.613580

Simon, R. W., & Barrett, A. E. (2010). Nonmarital romantic relationships and mental health in early adulthood: Does the association differ for women and men? *Journal of Health and Social Behavior, 51*(2), 168–182.

Smits, I., Doumen, S., Luyckx, K., Duriez, B., & Goossens, L. (2011). Identity styles and interpersonal behavior in emerging adulthood: The intervening role of empathy. *Social Development, 20*(4), 664–684. https://doi.org/10.1111/j.1467-9507.2010.00595.x

Sandberg, D. A., Suess, E. A., & Heaton, J. L. (2010). Attachment anxiety as a mediator of the relationship between interpersonal trauma and posttraumatic symptomatology among college women. *Journal of Interpersonal Violence, 25*(1), 33-49. DOI: 10.1177/0886260508329126

Wei, M., Vogel, D. L., Ku, T.-Y., & Zakalik, R. A. (2005). Adult Attachment, Affect Regulation, Negative Mood, and Interpersonal Problems: The Mediating Roles of Emotional Reactivity and Emotional Cutoff. *Journal of Counseling Psychology, 52*(1), 14–24.

Vespa, J. (2017, April). The Changing Economics and Demographics of Young Adulthood: 1975-2016. Retrieved from
Yarkovsky, N., & Fritz, P. A. T. (2014). Attachment style, early sexual intercourse, and dating aggression victimization. *Journal of Interpersonal Violence, 29*(2), 279-298. DOI: 10.1177/0886260513505143