

The Relationship between Identity Development Processes and Psychological Distress in
Emerging Adulthood

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ABSTRACT OF DISSERTATION

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Emerging adulthood is a time of exploration, instability, self-focus, feeling in-between, and possibility. As individuals navigate the challenges of this time and approach the tasks of becoming an adult, they can experience a wide range of positive and negative feelings related to distress, adjustment, and well-being. The quest for identity is considered a hallmark of this age period (Arnett, 1998). This study explores the transition period of emerging adulthood as it relates to the identity development process and psychological difficulties and well-being during this time and investigates the moderating effect of perceived emerging adulthood on the relationship between identity development and psychological distress. A sample of 254 community college students ages 18-29 (mean age = 21.3 years) completed eight self-report measures consisting of one measuring emerging adulthood themes (Inventory of the Dimensions of Emerging Adulthood; Reifman, Arnett, & Colwell, 2007), two measuring identity development processes (Dimensions of Identity Development Scale; Luyckx et al., 2008 and Identity Style Inventory; Berzonsky, 1992a, 1992b), three measuring relevant aspects of psychological distress (Kessler Psychological Distress Scale; Kessler et al., 2002, Alcohol Use Disorders Identification Test; Babor et al., 1989, and Reckless Behavior Questionnaire; Arnett, 1989), and two measuring aspects of well-being (Schwartz Outcome Scale; Blais et al., 1999 and Satisfaction with Life Scale; Pavot & Diener, 1993). Although some interaction effects suggested that perceived emerging adulthood moderated the relationship between the identity development process and psychological distress and well-being, a great majority of the sample was reportedly that of highly

perceived emerging adults who generally have moderate levels of anxiety and depression, low levels of alcohol use and reckless behaviors, and moderate levels of overall positive adjustment and satisfaction with life. While the features of emerging adulthood continue to be both exciting and tumultuous, these findings suggest that emerging adults are potentially accepting the characteristics of this time of life and in fact, embracing them, rather than feeling overwhelmed and distressed and acting out. These results offer further insight into the developmental processes during the emerging adulthood phase and offer clinical and outreach recommendations for mental health professionals who work with this population.

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CHAPTER 1: INTRODUCTION

Adolescence and young adulthood are periods of life in which individuals experience much growth and change. Normal development during this time consists of maturing academically and professionally, growing socially and emotionally, developing a solid identity, establishing and maintaining relationships, making appropriate decisions, and becoming independent from parents. While this transition from adolescence to adulthood can be exciting and promising, navigating these developmental challenges can also be a particularly confusing or distressing time of one's life. The goal of this dissertation was to further explore this transition period of emerging adulthood as it relates to the identity development process and psychological difficulties, as well as well-being, during this time.

Conceptual Framework

Emerging adulthood is a relatively newly defined phase of development that falls between adolescence and young adulthood. There are various perspectives through which to view this period of life, such as psychological (mental health), sociological (social relationships and place in society), medical (physical health and wellness), educational (higher education and graduate studies), and professional (work status and transition into the workforce). While each of these areas contributes greatly to an individual's well-being and general health, the investigator has elected to focus on emerging adulthood from a psychological theoretical perspective. Specifically, the present study is grounded in a psychosocial development framework and will examine emerging adults' developmental experiences within this context.

According to Erikson (1950, 1968) individuals are faced with a unique crisis to resolve with each developmental phase encountered in life, with a successful result being a change in perspective with which the next phase is entered. The adolescent crisis to resolve is the task of identity versus role confusion. Individuals work to establish a firm sense of who they are and a clear vision of the future. Inability to resolve this task results in role confusion. As young adults, individuals are faced with resolving the crisis of intimacy versus isolation. This task involves successfully forming intimate relationships without losing one's sense of self (the identity formed in the previous stage). An inability to maintain one's identity while connecting intimately with others can result in isolation.

Within the last 15 years, a new stage of development has been proposed and increasingly adopted. *Emerging adulthood* (Arnett, 1998, 2000) is identified as a life stage from the late teens through the early twenties that bridges adolescence and young adulthood. In contemporary Western culture, the passage from adolescence to adulthood is a gradual and lengthy process, defined and marked individually, as opposed to most non-Western cultures in which the entrance into adulthood is socially defined and marked by a social event, such as marriage. This transition to adulthood includes a process by which one moves from not identifying oneself as an adult to identifying oneself as an adult. During this period individuals are in the process of "developing the capacities, skills, and qualities of character deemed by their culture as necessary for completing the transition to adulthood" (Arnett, 1998). Five main features of the emerging adulthood period have been proposed: 1) the age of identity explorations, 2) the age of instability, 3) the age of self-focus, 4) the age of feeling in-between, and 5) the age of possibilities (Arnett, 2004).

Emerging adulthood is also made distinct by the identity exploration that takes place during this transition from adolescence to young adulthood (Arnett, 2000). According to Erikson (1950, 1968), a successfully negotiated identity provides individuals with a clear sense of who they are and their place in society, and allows for successful future development and adjustment through life. There exist several conceptualizations of the identity development process. Marcia's (1966) identity status model is the most widely used and proposes that a period of role exploration, followed by commitment, is a necessary process in the development of a stable identity. Further, four categories were established in which to further conceptualize the status of an individual's identity formation process—identity achieved, moratorium, foreclosure, and diffusion. More recently, Berzonsky (1989) expanded on Marcia's status model and looked at identity processing styles, the different ways in which individuals approach or avoid the tasks of identity exploration. Individuals with an *informational* processing style approach identity exploration deliberately and intentionally. They seek out opportunities, examine them against their own self-views and evaluate them in a reflective manner, holding off on initial judgment (Berzonsky, 1990). Individuals who utilize a *normative* identity processing style manage identity issues in a more passive and automatic manner, internalizing values and beliefs of significant others with little self-evaluation (Berzonsky, 1990). Those with a *diffuse-avoidant* identity processing style tend to avoid exploration or have an unsystematic exploration process, and unwillingness for active decision-making.

Statement of the Problem

The emerging adult years are a time of excitement, promise, and often angst as individuals navigate the challenges of becoming an adult. There are a myriad of tasks involved in making the transition from adolescence to adulthood, some of which include separating from parents, progressing academically and professionally, establishing meaningful and intimate relationships, making independent decisions, and maturing emotionally.

The quest for identity is considered a hallmark of this age period (Arnett, 1998). Once considered a task of adolescence (Erikson, 1950; 1968), with more young people attending college and graduate school and the age of marriage rising, the search for one's identity is now a more gradual and lengthy process and can continue well into the twenties (Arnett, 2000). This extended transition to adulthood can allow for more opportunities and life circumstances to play a role in shaping one's identity. Individuals' age may no longer deem them an adolescent, but they may not yet be an "adult" as they may still be in a separation and individuation process from their parents and therefore are not entirely financially independent or practice independent decision-making—qualities now considered to be those of an adult (Arnett, 2000). This experience of being in between adolescence and adulthood can feel discrepant, confusing, and conflictual. The notion of "perceived adulthood," the extent to which one considers him or herself an adult, is introduced as playing an important role in one's well-being, as being considered an adult by some standards and not by others can influence an individual's own perspective of where he or she sees him or herself along a developmental spectrum, and subsequently his or her behavior.

Emerging adults' search for who they are is an individual process that can pose unique challenges for each person. For some, opportunities seem endless and the self exploration process is welcomed and indulged. For others, exploration can feel unremitting, intimidating, or overwhelming (Luyckx et al., 2006b, 2008). Some may feel exploration is unnecessary; as they believe they already have an established sense of self. Others may not take an active role in this self search and instead allow themselves to "float" wherever they may. Still, some have limited opportunities or exposure, inhibiting an active exploration process, which then poses the question of how might these life circumstances influence an individual's approach to identity formation. Each of these approaches to the identity formation process can cause confusion, frustration, conflict, or distress, which can manifest in various different ways in each individual, displaying itself in issues such as depression, anxiety, substance abuse, or other psychopathologies. In a population with a prevalence of mental health problems, it is important to understand how the struggles involved with the developmental challenges of emerging adulthood may contribute to these psychological difficulties. Further, it is important to understand the role that one's perception of him or herself as an emerging adult plays in his or her navigation through the developmental task of identity formation and potential psychological difficulties. The problem investigated in this study is to identify the relationship between identity development processes and psychological distress in terms of perceived adulthood in emerging adulthood. Because of the variance in experiences among individuals as they approach these developmental tasks, aspects of well-being were also considered in the present study.

Purposes

It was the investigator's hope that the outcomes of the present study would produce further insight into the developmental processes involved during the emerging adulthood phase and offer tangible recommendations both for emerging adults to manage developmental challenges and for clinicians who work with this population. The goal of the proposed study is to add to the knowledge base of the identity formation process and emerging adulthood literature and survey what is going on in this population in order to contribute the following: The first purpose was to provide resources for psychologically distressed emerging adults. The present study's participants are affiliated with a community college and therefore may have access to campus academic health resources and services (although mental health resources are typically limited in community colleges). However, a large section of the emerging adult population may not have such affiliations or available resources. Further, it may not be common knowledge for emerging adults to know where to turn should the need for psychological help or support arise. The present study provides further information on emerging adulthood developmental challenges which in turn, can aid in normalizing these experiences for individuals. In an effort to minimize the progression of distressing symptomatology into more serious psychological problems, the results of the study intend to stimulate ideas for outreach in the general emerging adult community to validate their experiences, educate individuals of this natural developmental process, and offer guidance for where individuals can find resources to gain further information or support with their personal journeys into adulthood.

A second purpose of the current research was to utilize the study's findings to further inform clinicians of the ever-expanding understanding of this developmental period. Emerging adults make up a large portion of the therapeutic clientele, as colleges and universities have busy counseling centers that typically overflow into the psychotherapy community outside of the academic institution. It is the investigator's intention to utilize the present study's findings to expand mental health professionals' understanding of the developmental tasks of emerging adulthood and offer novel recommendations for effective interventions for clinicians who work with emerging adults with psychological difficulties during this time.

Finally, a third purpose of the present study was to utilize the increased understanding of this emerging adulthood period to professionals who interact with emerging adults in screening for psychological distress to prevent further pathology. If professionals who have regular contact with emerging adults (i.e. those in higher education environments) are aware of the general features of emerging adulthood, it is more likely that they can identify and possibly screen for psychological distress, and most appropriately intervene, in order to prevent further psychopathology in these individuals experiencing a difficult time. This process could potentially decrease the number of emerging adults in need of more serious psychotherapeutic help, as well as the degree to which individuals' challenges become more problematic experiences for them.

Research Questions and Hypotheses

The present study investigated the moderating effect of perceived emerging adulthood on the relationship between identity development and psychological distress. Aspects of psychological well-being were also investigated, with the intent of taking an

ancillary role in the current research. Previous related research was used to generate research questions and hypotheses as follows. The first research question asks: What moderating effect does perceived emerging adulthood have on the relationship between exploration and commitment and psychological distress in emerging adulthood? The construct of exploration consists of three variables—exploration in breadth, exploration in depth, and ruminative exploration. It was hypothesized that exploration in breadth and exploration in depth would be negatively associated with psychological distress for individuals who perceive themselves as emerging adults and positively associated with psychological well-being. It was hypothesized that perceived emerging adulthood would not moderate the link between ruminative exploration and psychological distress and well-being. It was expected that ruminative exploration would be positively associated with psychological distress and negatively associated with psychological well-being both for individuals who perceive themselves as emerging adults and those who do not. The construct of commitment consists of two variables—commitment making and identification with commitment. It was hypothesized that commitment making and identification with commitment would be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults.

The second research question asks: What moderating effect does perceived emerging adulthood have on the relationship between identity processing style and psychological distress in emerging adulthood? The construct of identity processing style consists of three variables—informational, normative, and diffuse-avoidant. It was hypothesized that perceived emerging adulthood would not moderate the link between an

informational identity processing style and psychological distress and well-being. It was expected that an informational identity processing style would be negatively associated with psychological distress and positively associated with psychological well-being both for individuals who perceive themselves as emerging adults as well as those who do not. It was hypothesized that perceived emerging adulthood would moderate the link between a normative identity processing style and psychological distress and well-being. It was expected that a normative identity processing style would be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults. It was hypothesized that perceived emerging adulthood would not moderate the link between a diffuse-avoidant identity processing style and psychological distress and well-being. It was expected that a diffuse-avoidant identity processing style would be positively associated with psychological distress and negatively associated with psychological well-being both for individuals who perceive themselves as emerging adults and those who do not.

Need for the Study

Emerging adulthood is considered a relatively newly defined stage of development. The phase of emerging adulthood was born out of noticeable changes in the attitudes, behaviors, and culture of young people in Western society. Over the past few decades, young people have demonstrated higher levels of uncertainty, variability, instability, self-focus, and possibility (Arnett, 2004). The notion of a potential “extended adolescence” or “delayed adulthood” has been increasingly adopted, and has been further reflected in the increase in an “emerging adulthood” literature base. However, research to further understand the psychosocial developmental implications on significant aspects

of this time of life continues to be sparse. The present study examined identity development, a hallmark of this life stage, and psychological distress, a prevalent display among today's young people, within the framework of emerging adulthood.

Much of the relevant identity research exists within the context of the emerging adulthood age range, however typically absent are developmental considerations of identity formation or the unique stage in which emerging adults find themselves. Lewis (2003) recommended further research related to identity and age differences, particularly because of a significant discrepancy in identity development that was found in his research between older and younger groups of emerging adults. Research has shown differences in psychosocial development and in the way in which individuals perceive themselves as adults regardless of age (Arnett, 1997, 1998, 2001; Nelson, 2003, 2005; Schwartz et al., 2005). Much of the existing identity research involving emerging adults include college student samples, often consisting of a mean age of 18 or 19 years old, therefore representing only the youngest of emerging adults (i.e. Bosma, 1985). The utilization of these samples results in generalizability issues and under represents significant members of the emerging adulthood population. By its nature, the college experience itself is that of a moratorium. A concentration on solely this population could likely result in an overrepresentation of individuals engaging in active identity exploration and limits the inclusion of potentially identity committed and/or older individuals on the emerging adult spectrum. There is variability in the degree to which individuals consider themselves adults, as individuals approach their identity development at different rates and manners. The present study expanded the existing research by incorporating the role of one's individual developmental process, or one's

own path of psychosocial growth and maturity, and examining how one's place within the emerging adulthood phase affects his or her identity development and mental health.

Moreover, the racial, ethnic, cultural, and socioeconomic diversity among the college student population is limited. There exists much room for further exploration of the identity development process among the general community. The present study's utilization of a community college student sample, a population traditionally more diverse in terms of age, ethnicity, socioeconomic status, and life experiences, intended to offer greater insight into the search for identity and emerging adulthood experience among the general population and across a broader range of life circumstances. This approach ensured a more diverse and inclusive representation of emerging adults.

Schwartz (2005) argued that the identity literature is narrow in its scope and under-represents the significance of Erikson's theory. Theoretically, identity research has relied largely on Marcia's (1966) identity status model. More recent studies have demonstrated the complexity of identity development; a movement beyond a categorical approach is necessary for a more comprehensive understanding of the identity development process, as demonstrated in Berzonsky (1989), Kroger (2003), Luyckx, et al. (2006b, 2008), and van Hoof and Raaijmakers (2003). A focus on identity styles can help make clear how the way in which individuals approach identity development tasks on a daily basis can lead to psychological difficulties. Additionally, the processes of exploration and commitment have received increasing attention (Luckyx et al., 2006b, 2008), displaying a further link between identity formation and psychological distress that can occur during the exploration process. The present study addressed this gap in the literature by further extending the investigation of the complexities of identity formation,

specifically looking at an approach to identity development in terms of style and type of exploration/commitment process.

Erikson (1950, 1968) posited that identity is a fundamental component of psychological functioning and overall mental health. To this end, Schwartz (2005) argued that there is a need to conduct identity research for the purpose of offering relevant and practical information for real world contexts. He recommended further studies beyond those simply of interest to identity researchers, but rather those which investigate the relationship of identity to psychological problems (e.g., anxiety, depression) and health risk behaviors (e.g., substance abuse, unsafe sexual behavior). The literature suggests a link between these constructs, however there is limited information that addresses the implications of this association and how mental health professionals may attend to these issues in their clients. The present study intends to offer increased awareness of the prevalence of identity issues and their influence on psychological difficulties, potentially indicating further mental health problems. It also aims to offer practical recommendations for ways in which mental health professionals can further incorporate such developmental processes into their conceptualizations of treatment. Treating clients with this developmental perspective in mind may help provide a more accurate diagnosis and clinically relevant treatment.

Because emerging adulthood is a relatively young, but growing, domain, limited research exists that examines mental health issues during this critical developmental phase. Out of convenience, access, and previous developmental theory, much research utilizes college student samples when addressing issues among the population that is now considered emerging adults. It is important that these issues be addressed during the

emerging adulthood phase as they could lead to more severe psychological disturbances that could cause significant impairments in functioning and in fact be more pathological, distressing, and/or dangerous.

It seems clear that difficulties encountered at this time are not correlated with age, per se, but instead may have much to do with the extent to which individuals consider themselves adults or emerging adults along a spectrum. Not all emerging adults have significant difficulties, however, the ones that do seem to struggle with clinical and sub-clinical issues of depression, anxiety, substance abuse, and other risk-taking behavioral problems. The present study, unlike any other, offered a way to make sense of and conceptualize the identity formation process for emerging adults as it relates to their psychological health.

Delimitations

In order to maintain a manageable study, it was necessary to employ delimitations to the present research to narrow it in scope. The investigator chose to delimit the study in several respects. A first delimitation involved characteristics of the sample population. Emerging adults are generally considered ages 18-29, however this does not mean that individuals outside of this range do not identify with emerging adulthood characteristics. Across human development research, emerging adult age ranges have varied. The present study focused on individuals aged 18-29 to represent the emerging adulthood population, as this is the most generally accepted age range and concentrated representation of emerging adults. The study's sample consisted of students from Northern Virginia Community College (NOVA), Montgomery College, and Howard Community College, community colleges in the Washington, D.C. metropolitan area.

This population restricts the sample to individuals in the population with a specific educational level. Community college students have a unique place in society in that they generally have committed to at least 2 years of undergraduate study. While this group may not be a representation of emerging adults in the general population who have less formal education or who attend a four-year college or university and/or graduate studies, it encompasses a broader variation of demographics that are more representative of the general emerging adult population. Further, community college students tend to be a diverse group of individuals in terms of age, socio-economic status, and in the Washington, D.C. area, ethnic background.

Another delimitation placed upon the present study involved a time dimension. Data was gathered at one point in time; individuals chose when to respond to the survey over a three-week period. This data collection method allowed for a self-reported perspective at a specific time chosen by the respondent, yet limited to a three-week period which reduced the variance for the entire sample (i.e. the entire sample may be going through similar academic experiences which may affect aspects of their lives similarly, as opposed to having a wider timeframe in which to respond and further develop).

A third delimitation of the study consists of the construct of emerging adult perception. The present study investigated the extent to which individuals perceive themselves as emerging adults. Specifically, perceived emerging adulthood is being measured. Individuals who do not score high on this measure identify less with being an emerging adult than they do with being an adolescent or an adult. Further details as to

which end of this developmental spectrum that these individuals identify and their implications is beyond the scope of this study.

Limitations

There are inherent limitations to the current study. The first relates to the diversity of the sample. Although there is variation across age, ethnicity, and socioeconomic status among community college students, the present study's sampling frame is limited in several ways. First, emerging adults consist of individuals in the general population who are in a particular phase of development, typically associated within an age range of 18-29 years old. The present study's utilization of community college students generally limits the sample to a particular education level, therefore excluding four-year college students and graduates, graduate students, and individuals who do not pursue higher education. Second, the socioeconomic status of the sample may not be representative of the general emerging adult population, as many who choose a community college over a four-year higher education program do so due to financial constraints. Third, although Washington, DC is an ethnically diverse region, the area's community college international student population is underrepresented when compared to the area's general international population. Finally, community college students can vary in age, however a large amount of these students typically enroll in community college directly after high school or within a few years, therefore potentially limiting the sample to a higher number of individuals falling on the younger end of the emerging adult spectrum.

Another limitation is the study's cross-sectional design. Data was collected from one group of individuals at one point in time. Although it was expected that the sampling

frame would provide a diverse representation of the emerging adult community, it is only one sample, which limits the representation to the experiences of only the sampled individuals. Moreover, individuals being measured only once affect the general reliability of the study; it cannot account for consistency of results over time. These limitations must be taken into account when generalizing the findings of the present study.

A third limitation to the current study is the focus on individuals who perceive themselves as emerging adults. Individuals who do not consider themselves emerging adults therefore may feel either closer to adolescence or closer to adulthood. Since one of the utilized instruments, the Inventory of the Dimensions of Emerging Adulthood (IDEA) (Reifman, Arnett, & Colwell, 2007), only measures identification with emerging adulthood, it is unclear to which end of the spectrum those who do not perceive themselves as emerging adults may fall. Further investigation of the identity development process and psychological distress among individuals in the 18-29 year old age range who do not consider themselves emerging adults is recommended for future research.

Assumptions

As a beginning point for the present research, it was important to establish several assumptions from which the study's conception was based. A first assumption was that all individuals mature and grow through the process of a human developmental stage model. A myriad of models and theories exist to help explain or understand human development. Developmental stage models, particularly Erikson's (1950, 1968) model of psychosocial stages (from which the present study is based), are widely accepted and

utilized in psychological and related fields as a legitimate way in which to conceptualize human growth and development.

A second assumption was the notion that symptoms of psychological distress can lead to more severe psychopathological problems. When an individual experiences a symptom of psychological distress, it can be time limited and isolated to a reaction to a particular situation, or it can be associated with a greater psychological issue. In a self-report measure of symptomatology, it can be unclear if an individual's reports are indicative of a fleeting internal psychological experience, a serious mental health condition, or somewhere in between. However, it was understood that symptoms of psychological distress can be indicative of or lead to more serious psychological problems, and it was under this assumption that the importance of the present study is based.

A third assumption was that each variable in the present study can be measured validly and reliably using a specific instrument. Each instrument utilized in the present study has been tested for acceptable levels of validity and reliability. Further it was believed that the instruments chosen to be used in the proposed study are reflective of the constructs and variables measured.

Summary of the Methodology

The current study is cross-sectional in design. It surveyed one particular group of emerging adults at one point in time. The study was correlational in that it investigated the relationship between identity, psychological distress and well-being, and emerging adulthood variables. Regression analyses were utilized to determine the nature of the associations between the variables. Specifically, the moderating effect of perceived

emerging adulthood on the relationship between identity and psychological distress and well-being was examined.

The population under investigation was emerging adults, delimited to individuals ages 18-29. The sampling frame was community college students at Northern Virginia Community College (NOVA), Montgomery College, and Howard Community College in the Washington, D.C. metropolitan area. Participants in the study were recruited through community college social science faculty. At the time of recruitment, students received a brief introduction to the research and a website link to access an online survey via an email through their professor. Data was collected via an internet-based survey tool after receiving details of the present study and signing an electronic informed consent. After completing the survey, participants were able to access a list of emerging adult relevant resources for support.

The present study's survey was made up of several pre-existing measures and original demographic information. Section A of the survey consisted of the Inventory of the Dimensions of Emerging Adulthood (IDEA), which assessed identification with the five transition-to-adulthood themes identified by Arnett (2004a, 2004b)—the age of identity explorations, the age of instability, the self-focused age, the age of feeling in-between, and the age of possibilities. Internal consistency (alpha) reliability coefficients for the subscales were generally strong, between .67 to .81. The Chronbach's alpha for the total IDEA scale was .90. The survey author reported that test-retest reliability correlations (over a one-month interval) ranged from .64-.76, with the exception of the "feeling in-between" subscale (.37). The IDEA has also demonstrated meaningful correlations with existing emerging adulthood constructs in the literature.

Section B of the survey included the Dimensions of Identity Development Scale (DIDS; Luyckx et al., 2008). The DIDS is a 25-item self report measure that addresses the five identity dimensions proposed by Luyckx et al. (2006b)—commitment making, identification with commitment, exploration in breadth, exploration in depth, and ruminative exploration—in the domain of general future plans (5 items for each dimension). Chronbach's alphas for the five subscales in the current sample were acceptable, ranging between .71-.89. This section of the survey attended to the constructs of exploration and commitment.

Section C of the survey consisted of Identity Style Inventory (ISI-3; Berzonsky, 1992a, 1992b), a self-report instrument that assessed the three identity styles (an 11-item informational subscale, a 9-item normative subscale, and a 10 item diffuse-avoidant subscale) and included a 10-item commitment subscale. The ISI-3 has been utilized extensively in studies with various samples and cultures which has demonstrated the validity of the measure (for reviews, see Berzonsky & Adams, 1999; Berzonsky, Macek, & Nurmi, 2003). Test-retest and internal reliabilities have shown to be acceptable (Berzonsky, 1997). Internal reliabilities (coefficient alphas) for the current sample were acceptable with .66 for informational, .66 for normative, and .80 for diffuse avoidant.

Several instruments were utilized to measure both internalizing (anxiety and depression) and externalizing (alcohol use and reckless behavior) behavioral aspects of psychological distress. Overall positive adjustment and satisfaction with life was also measured to provide an ancillary indication of psychological well-being. Section D of the survey was comprised of the Kessler Psychological Distress Scale (K-10; Kessler et al., 2002), a 10-item self-report questionnaire designed to measure the level of distress

and severity associated with psychological symptoms in population surveys over the past four weeks. High levels of internal consistency and concurrent validity have been established for the K10. The Chronbach's alpha for the K-10 scale in the current sample was .90.

Section E of the survey consisted of the Alcohol Use Disorders Identification Test (AUDIT; Babor et al., 1989), a 10-item scale that includes questions about recent alcohol use, alcohol dependence symptoms, and alcohol related problems. Studies indicated high internal consistency and high test-retest reliability ($r = .86$). The Chronbach's alpha for the AUDIT in the current sample was .85. The AUDIT has shown to have strong validity based on a variety of studies displaying high correlations with other alcohol problem screening measures.

Section F of the survey included the Reckless Behavior Questionnaire (RBQ; Arnett, 1989) to assess risk-taking and reckless behavior and illicit drug use. The survey author reported that this 10-item questionnaire's test-retest reliability in a college student sample was .80 three months after initial testing. Test-retest correlations for individual items ranged from .51 to .82. Internal reliability for the current sample was acceptable at .79. One- and two-factor models provided evidence of criterion and construct validity.

Section G of the survey was comprised of the Schwartz Outcome Scale (SOS-10; Blais et al., 1999), a 10-item assessment instrument designed to measure a broad domain of psychological health. Initial reliability and validity studies reported strong internal consistency (Chronbach's alpha = .96) and item-to-scale correlations of .74 to .90 in a psychiatric patient population. The internal reliability in the current sample was .93. Convergent and divergent validity was shown to be strong with measures of

hopelessness, self-esteem, positive and negative affect, mental health, fatigue, life satisfaction, psychiatric symptoms, and desire to live. Further studies on non-clinical college student populations indicated high reliability and validity and an appropriate instrument for measuring general adjustment and psychological well-being (Young et al., 2003).

Section H of the survey consisted of the Satisfaction with Life Scale (SWLS, Pavot & Diener, 1993), a 5-item instrument designed to measure global satisfaction with one's life. The SWLS showed strong internal reliability with a coefficient alpha of .87 in the current sample. The survey author reported moderate consistency with a 2-month test-retest stability coefficient of .82. Normative data shows good convergent validity with other scales and with other types of assessments of subjective well-being and shows discriminant validity from emotional well-being measures. The SWLS is recommended to complement psychopathology or emotional well-being scales because it assesses an individual's subjective cognitive judgment of his or her own life.

Section I of the survey was made up of general demographic questions relevant to the emerging adulthood life stage. This section addressed age, gender, ethnicity, student status, current grade point average, high school grade point average, degree status, number of credit hours completed, English as a second language (ESOL) status, employment status, relationship status, family status, and socioeconomic status.

The present study's investigation utilized a moderated-effects model. It was predicted that the strength of the relationship between identity development and psychological distress and well-being would change with the degree to which an individual considered him or herself an emerging adult (perceived emerging adulthood).

The first step in the data analysis process was to provide a description of the study's sample by presenting descriptive statistics for the data collected. Second, a correlation matrix was run for each research question. Third, a regression analysis was conducted to determine how perceived emerging adulthood moderated the relationship between the identity development variables (informational processing style, normative processing style, diffuse-avoidant processing style, commitment making, identification with commitment, exploration in breadth, exploration in depth, and ruminative exploration) and psychological distress and well-being.

Definitions of Key Terms

Commitment making—the degree to which an individual has made choices about important identity-relevant issues (Marcia, 1966).

Emerging adulthood—a developmental period between the ages of approximately 18-29 consisting of five features—the age of identity explorations, the age of instability, the age of self-focus, the age of feeling in-between, and the age of possibilities—and bridges the gap between adolescence and young adulthood (Arnett, 1998, 2000, 2004).

Exploration in breadth—the degree to which individuals search for different alternatives with respect to their goals, values, and beliefs before making commitments (Luyckx et al., 2008).

Exploration in depth—an in-depth evaluation of one's existing commitments and choices to ascertain the degree to which these commitments resemble the internal standards upheld by the individual (cf. Kerpelman, Pittman, & Lamke, 1997; Luyckx et al., 2008; Meeus, Iedema, & Maassen, 2002).

Identification with commitment—the degree to which individuals feel certain about, can identify with, and internalize their choices (cf. Bosma, 1985; Luyckx et al., 2008; Ryan & Deci, 2000; Waterman, 1990).

Identity—an individual's cohesive synthesis of personal values and beliefs constructed by past experiences and perspectives, inner qualities and abilities, societal expectations, and future individual expectations (Erikson, 1950, 1968).

Identity style—a conceptualization of the process by which an individual approaches identity formation by the manner in which an individual makes decisions on a daily basis (Berzonsky, 1989).

Moratorium—an extended exploratory stage in which individuals are relatively free from limitations on their choices, can assume an active role in their own development, and explore life alternatives without the burden of permanent adult responsibilities (Arnett, 2000; Cote & Schwartz, 2002).

Perceived emerging adulthood—the extent to which an individual identifies with the features of emerging adulthood and considers him or herself an emerging adult (Arnett, 1998, 2000)

Psychological distress—any symptom of psychological disturbance that could potentially interfere with daily functioning.

Reflective exploration—an adaptive identity development dimension associated with openness and general curiosity (Clancy & Dollinger, 1993; Luyckx, Soenens, & Goossens, 2006c).

Ruminative exploration—an identity dimension consisting of maladaptive exploratory processes which include heightened anxiety and depressive symptoms (Luyckx et al., 2008).

CHAPTER 2: LITERATURE REVIEW

The Problem to be Addressed and its Significance

The transition from adolescence to adulthood can be a time of excitement, hope, and possibility. During this phase, individuals are in a time unlike any other, which often includes freedom, possibility, and opportunity, and the chance to explore life's alternatives without the burdens of adult responsibility. Developing a solid sense of self, or identity, is a hallmark of this period (Arnett, 2000; Erikson, 1950; 1968). This process of emerging into an adult and developing an identity also can be accompanied by confusion, apprehension, and overwhelm, potentially resulting in distress. The goal of this dissertation is to further explore this transition period of emerging adulthood as it relates to the identity development process and psychological difficulties during this time. Psychological well-being is also considered in a supplementary role in understanding emerging adults' overall psychological health. The problem investigated in this study is to identify the relationship between identity development and psychological distress and well-being in terms of perceived emerging adulthood, the extent to which an individual identifies with the features of this transition phase. The purpose of the present study is to add to the knowledge base of emerging adulthood and survey this population in order to: 1) Offer recommendations for effective interventions for clinicians; 2) Provide resources for psychologically distressed emerging adults; and 3) Screen for psychological distress to prevent further pathology.

Methods of Review

The following review of literature involves an overview and synthesis of existing research related to the identity development process, psychological distress (focusing on

clinical issues particularly relevant to adolescents, emerging adults, and young adults), and the emerging adulthood psychosocial developmental phase. The present study involves three constructs, each of which has a literature base of its own, some areas more developed than others. Research also exists that links two of the three constructs together to create a more specific area of review. It is rare, however, for these three separate constructs—identity, psychological distress, and emerging adulthood—to be found linked together in research, despite the natural fit that they may have. This gap in the literature invites the present study’s review of identity, psychological distress, and emerging adulthood research to better understand the relationships among these constructs and to contribute to the developmental, clinical, and counseling psychology literature.

The method of review consisted of computerized searches within academic social science and psychology-based databases of each construct separately and then combinations of constructs to ensure coverage of possible already investigated links. Further review of specific research yielded additional sources and references of studies relevant to the topics at hand. After careful review of all determined relevant research and evidence of similar and repetitive citations throughout, it was resolved that the spectrum of available literature had been sufficiently covered.

Theoretical Foundation and Conceptual Framework

Psychosocial development

According to Erikson’s (1950; 1968) developmental stage theory, individuals progress through stages in life, and each of these offers a unique challenge or “crisis” to resolve. These crises involve actively engaging in tasks which results in a radical change in perspective. During adolescence, the crisis presented is the task of identity versus role

confusion. Individuals are in the process of establishing a firm view of their self and a vision of the future. Forming an identity involves integrating a system of values and beliefs that offer meaning and direction. During this process individuals make decisions and develop convictions in areas relating to values, interpersonal relationships, careers, religious, sexual, and political beliefs, and so forth. This time of transition also involves experimentation, testing limits, and separating from parental influence. Failure to achieve a sense of identity results in role confusion, exemplified by the stereotypical argumentative, volatile teenager who persistently experiments with new behaviors and succumbs to fads, or floats through life confused and misdirected, perhaps perpetually feeling uncomfortable in his or her own skin.

In the young adult stage, individuals are faced with the challenge of intimacy versus isolation. The task of this stage is to successfully form intimate relationships without losing one's sense of self—the identity that was developed in the previous stage. According to Erikson, true intimacy with another is only possible once the identity formation process is well on its way, as true intimacy is the melding of identities. Young adults who are not yet sure of who they are may shy away from interpersonal relationships or may throw themselves into “intimacy” by means of promiscuity or attempted deep interpersonal relationships that could result in confusion and feeling overwhelmed. The inability to share one's identity and connect in an intimate way can lead to isolation and alienation. For example, when young adults have not connected with their own selves and have endured superficial or stereotyped interpersonal relationships, they may develop a character crisis by never really feeling who they are,

resulting in isolating themselves and alienating others. Young people are faced with resolving these crises as they pass through these significant life stages.

Theory of emerging adulthood

In contemporary Western culture, the passage from adolescence to young adulthood is a gradual, lengthy process defined and marked individually, as opposed to most non-Western cultures in which the entrance into adulthood is socially defined and marked by a social event, such as marriage. Individuals today consider themselves adults when they have achieved residential and financial independence, accept responsibility for themselves, and make independent decisions (Arnett & Taber, 1994; Arnett, 1998). Arnett (1998, 2000) has proposed a new stage of development, *emerging adulthood*, for the period from the late teens through the early twenties, with a focus on ages 18-29. Emerging adulthood can be conceptualized as a phase of development that bridges adolescence and young adulthood. This transition to adulthood consists of a process in which one moves from not identifying oneself as an adult to identifying oneself as an adult. Emerging adulthood is a transitional stage where one feels somewhat like an adult and somewhat not like an adult. In this transitional period individuals are in the process of “developing the capacities, skills, and qualities of character deemed by their culture as necessary for completing the transition to adulthood” (Arnett, 1998). Five main features of the emerging adulthood period have been proposed: 1) the age of identity explorations, 2) the age of instability, 3) the age of self-focus, 4) the age of feeling in-between, and 5) the age of possibilities (Arnett, 2004).

The age of identity explorations. Establishing an identity is one of the hallmarks of the emerging adulthood period. As emerging adults become more independent and

separate from their parents, they begin to question more critically who they are and what this means for their lives and future. While in this psychosocial moratorium (Erikson, 1968), emerging adults experiment with taking on different roles. This self-exploration is typically centralized around the areas of love and work. Emerging adults not only are in the process of figuring out the kind of person they are, but also how well their selves might synchronize with different types of people, especially a potential life partner. In work, individuals may try out different types of jobs not usually in a transient way of adolescence, but in a way that sets a foundation for future careers. This period of exploration and experimentation also serves the function of allowing individuals to have a broad range of experiences to set a foundation for their adult life before they settle down with adult responsibilities.

The age of instability. The many changes resulting from explorations can make emerging adults' lives quite unstable. Childhood and adolescence have a degree of certainty in terms of next life steps—i.e. after junior high school comes high school; after high school comes college or entry into work. Emerging adults often find themselves feeling unclear about next steps, thus constantly having to change their “plan.” For example, decisions may be made about a future with someone only to discover that this person isn't “the one.” Or, an emerging adult chooses a college major and after several classes, realizes that his or her interest no longer lies in this area. With each revision of their plan, emerging adults learn more about themselves and the future direction in which they create. These many changes and explorations often involve changes in residence (i.e. roommates, a live-in romantic partner, and moving locations for a job) further contributing to the instability of this period.

The age of self-focus. When emerging adults move out of their parents' homes, for the first time they can exert their independence in a new and liberated way. They finally have no one to answer to but themselves. Along with this freedom comes the task of having to make independent decisions ranging from what to have for dinner that night to whether or not one's job is the right one for him or her. Although assistance or guidance is available, most decisions require emerging adults to be responsible for their own choice, as it is only themselves who really know what they desire or need. As a result of the new found freedom, opportunities, and the ability to live without the constraints of childhood and the commitments and responsibilities of adulthood, emerging adulthood is a self-focused period of life. By focusing on themselves, emerging adults learn basic skills of living as well as significant aspects of themselves that continue to build a foundation for their lives as adults.

The age of feeling in-between. Emerging adults typically feel that they have reached adulthood in some ways, yet not entirely. No longer living at home under parental restrictions as adolescents and not yet settled in their occupational, romantic, or parental lives as adults, emerging adults are in a time of feeling in-between. The criteria that emerging adults consider for adulthood are not marked by a specific event or incident—at least in western cultures—, but are more gradual, thus individuals define themselves as an adult through an ongoing process as well. The top three criteria for adulthood are accepting responsibility for oneself, making independent decisions, and becoming financially independent. While individuals navigate these tasks, along with many others significant for this time period, they feel in-between.

The age of possibilities. Emerging adulthood is a time of unprecedented possibilities. Now predominately responsible for themselves, emerging adults are free to make choices influencing their lives unlike ever before. Opportunities in education, work, friendships, love, travel, etc. all seem endless. During this time emerging adults also feel positive and hopeful about their futures. Leaving home puts forth the chance for individuals to make decisions that are independent from their parents and that work to influence who they become and how they plan to live. This chance to leave home is an especially significant opportunity for individuals with an unstable home life to transform their lives and open the door to many possibilities that may not have been considered achievable before. More than any other life stage, emerging adulthood offers the possibility of change.

Arnett's research on emerging adulthood highlights the various features that define this life period and make it unique in comparison to other developmental stages. He also emphasizes the developmental tasks and gradual process that it takes to navigate oneself through this transition from adolescence to adulthood. The development of capacities, skills, and character qualities during this time is also a unique and individual process that varies from one person to another based on a myriad of factors such as life experience, culture, background, opportunities available, physical health, mental health, personality, etc. Although emerging adults are generally considered the age group of 18-29, individuals may move through this stage at different rates. A 19-year-old may feel that he or she is very much an adult while a 25-year-old may believe that he or she has yet to feel the independence and responsibilities of an adult. These differences indicate that there is variability in terms of the degree to which one considers him or herself an

adult or an emerging adult (“perceived emerging adulthood”) within the emerging adult group.

It is also argued that in contemporary Western culture the period of role exploration has been extended due to greater college and graduate school attendance, changes in women’s roles, and later entrance into marriage and parenthood. As discussed, it is further proposed that emerging adulthood is also made distinct by the identity exploration that takes place during this transition from adolescence to young adulthood (Arnett, 2000). Unlike in adolescence, individuals are experimenting with activities, opportunities, relationships, and experiences that set a foundation for their adult futures. Thus, this new developmental stage has come to light that allows teens and twenties a prolonged period of role exploration and identity formation.

Identity as a developmental task

Erikson’s (1950, 1968) conceptualization of identity is an individual’s cohesive synthesis of personal values and beliefs constructed by past experiences and perspectives, inner qualities and abilities, societal expectations, and future individual expectations. The formation of an identity is a collaborative undertaking between an individual and his or her context. According to Erikson there exists three aspects of identity—ego, personal, and social. Ego identity represents the unconscious processes underlying identity formation. Personal identity consists of one’s goals, values, and beliefs. Social identity refers to one’s place in the social world and the way in which he or she makes his or her way. A successfully negotiated identity provides individuals with a clear sense of who they are and their place in society. Further, it is argued that an integrated sense of self (a strong ego identity) allows for successful future development and adjustment

through life. Erikson conceived identity as central to positive psychological functioning, necessary for avoiding problematic mental health and social outcomes, and crucial for discerning one's place in the world (Schwartz, 2005). Erikson considered identity as the core of his theory of personality. A period of role exploration is a necessary process in the development of a stable identity.

Several conceptualizations of the identity development process exist, with Marcia's (1966) identity status model as the most widely used. Marcia expanded Erikson's identity development theory by operationalizing the identity formation process. Marcia (1966) viewed identity formation as two constructs—exploration and commitment. Exploration is considered the process of genuinely examining and experimenting with alternative directions and beliefs. Commitment refers to “the degree of personal investment the individual exhibits” (Marcia, 1966, p. 551). Further, four categories were established in which to further conceptualize the status of an individual's identity formation process—identity-achieved, moratorium, foreclosure, and diffusion. Individuals in an *identity-achieved* status have experienced a crisis, explored, and then committed to a set of values and beliefs about themselves and their place in the world. Those in a *moratorium* status are in the process of actively exploring, but have not committed to an identity. The *foreclosure* status refers to individuals who have not engaged in any exploration, but have committed to an identity. Finally, those in the *diffusion* status have not yet engaged in exploration nor have committed to an identity.

More recent identity research has begun to look beyond the identity status paradigm, recognizing the complexity involved in this developmental process. Berzonsky (1989) further expanded the identity status approach with his theory of

identity processing styles that conceptualizes identity styles based on how individuals make decisions on a daily basis. Berzonsky (1990) focused on the social cognitive aspect of the identity formation process—developing orientations to which he referred as identity styles. These styles focus on one aspect of Marcia's (1966) identity statuses—the different ways in which individuals approach or avoid the tasks of identity explorations. Individuals who have achieved an identity or are in a moratorium state have been found to approach their identity development with an *informational* processing style (Berzonsky & Neimeyer, 1994; Streitmatter, 1993). They manage identity issues deliberately and intentionally. They seek out opportunities, examine them against their own self-views and evaluate them in a reflective manner, holding off on initial judgment (Berzonsky, 1990). Individuals with foreclosed identities have been found to utilize a *normative* processing style in managing identity issues (Berzonsky & Neimeyer, 1994; Streitmatter, 1993). They deal with identity issues in a more passive and automatic manner, internalizing values and beliefs of significant others with little self-evaluation (Berzonsky, 1990). Berzonsky considers individuals with a diffusion identity status as having a *diffuse-avoidant* identity processing style (Berzonsky & Neimeyer, 1994). These individuals have an avoidance of exploration, or an unsystematic exploration process, and unwillingness for active decision-making.

The exploration and commitment process of identity formation has also continued to be addressed in identity literature. Luyckx, et al. (2006b) recognized that both identity exploration and commitment are multi-dimensional. That is, there is an internal process involved in identity formation that has yet to be tapped into that may help explain the individual variation in identity development experiences. Out of this idea emerged a

four-dimensional model of identity formation (Luyckx, et al., 2006b) to address mixed findings in the literature that associated identity exploration with both positive and negative features as openness and curiosity, as well as anxiety and depression.

Commitment making is consistent with Marcia's (1966) commitment construct, defined as the degree to which individuals have made decisions about identity-relevant issues.

Identification with commitment consists of the degree to which individuals feel certain about, can identify with, and internalize their choices. *Exploration in breadth* is defined as the degree to which individuals search for different alternatives with respect to their goals, values, and beliefs before making commitments. *Exploration in depth* encompasses a deeper evaluation of one's existing commitments and determines the extent to which these commitments resemble an individual's internal standards.

Recognizing that the exploration process can be both adaptive and distressing, Luyckx et al. (2008) differentiated this construct as reflective versus ruminative. Recently, Luyckx et al. (2008) proposed a fifth dimension, *ruminative exploration*, to characterize the chronic, repetitive, and passive pattern of exploration that induces feelings of hopelessness and uncontrollability. This novel approach to identity development offers an attempt at understanding the cognitive, emotional, and behavioral aspects of the identity formation process in a more active way. Luyckx et al. (2006b, 2008) have recognized that a movement beyond both identity status and style is necessary in understanding the more detailed complexities of the process and providing an explanation for the apparent difficulties individuals seem to have as they navigate the tasks of identity formation.

Emerging Adulthood and Identity

The identity formation process has recently become a research concentration within the developmental phase of emerging adulthood, as it has been recognized as a task no longer completed during adolescence. Much of the relevant research linking these constructs exists within the context of the emerging adulthood age range, however typically absent are developmental considerations of identity formation or the unique stage in which emerging adults find themselves. The following section offers a summary of research that examines various aspects of identity development, utilizing both an identity status and style approach, as it is related to the emerging adulthood stage.

Significant research has examined the identity development process in adolescence and among college student emerging adults. Waterman (1982) asserted that the greatest gains in identity formation take place during the college years, as a college environment offers a diversity of experiences and therefore, exposure to various ways to resolve identity issues. Lewis (2003) explored differences in identity among college students across age, ethnicity, and gender. Findings indicated that higher foreclosure and diffusion scores emerged for individuals younger in age, revealing that many younger emerging adults had not yet approached the identity exploration process. In terms of overall identity scores, there were no significant differences between males and females, although for the interpersonal component, men scored higher in diffusion and foreclosure levels. Looking at the interaction of gender and age, women scored higher than men in identity achievement at every age except the range of 24-26 years, in which the women in this group scored the lowest in identity achievement. This study was stated to have generated findings that were relatively consistent with previous related identity literature.

Lewis also recommended further research related to identity and age differences, particularly because of such a discrepancy between the significantly higher rates of identity achieved individuals in the 27 and older group and higher rates of moratorium, foreclosed, and diffused identities in the younger groups.

Lewis' findings support Arnett's (1998; 2000) theory of emerging adulthood. While identity was long considered a developmental task of adolescence, with the delay in individuals reaching full adult status (as deemed by themselves as well as society), individuals are provided with a prolonged period of exploration available to them. This delay in developmental maturity might explain why individuals in the study who are in their early- to mid-twenties maintain their unachieved identity statuses. Moreover, research has shown differences in psychosocial development and in the way in which individuals perceive themselves as adults regardless of age (Arnett, 1997, 1998, 2001; Nelson, 2003, 2005; Schwartz et al., 2005). Additionally, as college students, they remain in a moratorium-friendly environment, further postponing the necessity to commit as an adult. This theory of a "prolonged adolescence" has become more widely adopted, as more recent studies have become prevalent in the literature that focus on identity specifically in the period of emerging adulthood.

Luyckx, Goossens, and Soenens (2006a) differentiated exploration and commitment each into two separate dimensions and examined a dual-cycle model of identity formation—a commitment-formation cycle, consistent with Marcia's (1966) model of exploration and commitment, and a commitment-evaluation cycle, comprised of exploration in depth and identification with commitment [this model eventually was revised into the four-, and then five-dimensional identity formation model (Luyckx, et al.,

2006b; 2008)]. It is argued that beyond the importance of committing to an identity is the degree to which individuals identify with and feel certain about their decisions (Bosma, 1985). Both the commitment-formation cycle and exploration in depth increased across time, while identification with commitment exhibited a slight decrease across time. These findings may be reflective of the high levels of experimentation associated with the moratorium phase of the identity development process—individuals may be experimenting with committing to an identity, but know that it might be transient; therefore avoiding identifying with a persona in which they know may not be permanent. Further, although this study presented findings within the context of emerging adulthood, participants consisted of college students, with a mean age of 18 years, 8 months, thus primarily representing only the youngest group of emerging adults. What remains to be understood is how individuals across the emerging adulthood age range may differ in the extent that they identify with their commitments, as older emerging adults will have had further opportunities to explore.

The role of personal agency and individualization can be associated with the identity development process (Cote, 2000; Cote & Levine, 2002). Schwartz, Cote, and Arnett (2005) examined three psychological aspects of identity formation (style, status, and process) in relation to personal agency and the individuation process during emerging adulthood. Agency refers to self-direction, free exercise of choice, a sense of personal responsibility, or a sense of being in control of one's life choices and outcomes (Cote & Levine, 2002). Results suggested that higher levels of agency are positively related to exploration and flexible commitment. Agency has also been positively associated with

identity achievement and negatively related with identity diffusion (Cote & Schwartz, 2002).

Schwartz, et al. (2005) also suggest that older emerging adults may be more likely than younger emerging adults to choose developmental, rather than default individualization. Cote (2000) defines *default individualization* as a life course process dictated by circumstance and impulse, with little assertion of agency, for example ascribing to “default” societal option such as music or fashion trends or following a “path of least resistance.” *Developmental individualization* refers to a process of continual and deliberate growth by pursuing intellectual, occupational, and psychological opportunities based on exploration of alternatives. It appears clear that default individualization could be associated with a diffused or foreclosed identity status, while developmental individualization reflects the moratorium and eventually achieved identity status.

Limited research has investigated general aspects of identity across racial or ethnic groups. Most identity related research involving diverse samples focuses on specific aspects of identity such as cultural, racial, or ethnic identity (see S. J. Schwartz, Montgomery, & Briones, 2005; Sneed, Schwartz, & Cross, 2006 for reviews). However, Schwartz, et al.’s (2005) study of identity and agency in emerging adulthood utilized an ethnically diverse sample of United States emerging adults (37% non-Hispanic Whites, 23% non-Hispanic Blacks, and 40% Hispanics), further supporting the generalizability across ethnicity of Erikson’s (1968) theory of identity development. While few differences were found across ethnic groups, those that appeared suggest that non-Hispanic Whites were less committed in the ideological areas of identity (i.e. cultural, religious, gender) than were individuals of other ethnic groups.

There is conflicting research regarding gender differences in identity status. It has been thought that identity formation for women has been linked alongside interpersonal relationship development, whereas historically men have intrapersonal (i.e. occupational) identities (Gilligan, 1982; Patterson, Sochting, & Marcia, 1992; Sorell & Montgomery, 2001). However, other research has found that few differences exist between the genders in the identity development process (Archer, 1992; Kroger, 1997). Anthis, Dunkel, and Anderson (2004) explored gender and identity status differences in emerging adults' possible selves. Possible selves refers to representations of one's self in the future in terms of both aspirations (hoped-for possible self) and concerns (feared possible self) (Markus & Nurius, 1986). Results indicated no relationship between identity status and interpersonal possible selves, nor significant gender differences. These findings are consistent with other similar studies (Shepard & Marshall, 1999; Knox et al., 2000).

There exists additional work in the area of identity development that further extends the foundation laid by Erikson (1950, 1968) and Marcia (1966, 1980, 1988). Schwartz (2005) argues that the identity literature is narrow in its scope and under represents the significance of Erikson's theory. Theoretically, identity research has relied largely on Marcia's (1966) identity status model. Studies have demonstrated the complexity of identity development and a movement beyond a categorical approach is necessary for a more comprehensive understanding of the identity development process.

Of particular relevance for the current work is Kroger's (2003) research that investigated the way in which the identity development process relates to further understanding of the meaning of identity. Kroger posited what occurs in an identity status transition and examined how the structure underlying the ego identity statuses and

the content of identity differentiate, with the goal of further understanding the meaning of identity status transitions during adolescence and beyond. *Identity structure* is referred to as organizational structures underlying each of the identity statuses that determine how identity contents are organized (Kroger, 2003, p. 208). Moreover, it is the way in which one organizes identity-defining roles and values (Marcia, 1980), or the filter through which one “makes sense” of one’s life experiences. *Identity content* consists of the psychosocial, identity-defining domains of commitment relevant to an individual, or “the ‘whats’ that one selects to express meaningful values and roles within a social context” (Kroger, 2003, p. 209). Kroger proposed the importance of differentiating the change of identity structures from the change of identity content to better understand their meaning in transitions in identity development.

The search for the structure of identity formation continues, as van Hoof and Raaijmakers (2003) suggest, in that the identification of structure and structural stages of identity implies a movement away from the identity status model. Further supporting Kroger’s (2003) definitions of structure in the identity status transition process, it is argued that conceptualizing identity development solely from an identity status model can be restricting. The idea of structural integration as a way of interpreting and defining the structure of identity formation is proposed (van Hoof & Raaijmakers, 2003). Structural integration refers to “the combination of context-specific identity elements [i.e. work, religion, family] into a coherent profile (spatial integration), and the maintenance of this profile through time (temporal integration)” (van Hoof & Raaijmakers, 2003, p. 279). Structural integration can determine how and to what extent an individual integrates his or her context-specific identities across time and circumstance.

Berzonsky's (1989) conceptualization of identity styles, based on how individuals make decisions on a daily basis, works to further understand the identity construction process beyond categories. This identity style approach addresses underlying social and cognitive functioning involved in establishing a sense of self. Further, Luyckx, et al.'s (2006b, 2008) identity formation model examines in greater depth than ever before the exploration and commitment process. The present study utilizes Berzonsky (1989) and Luyckx, et al.'s (2006b, 2008) methodology in investigating the extent to, and process by which, emerging adults have approached their identity development.

The aforementioned research, addressing issues of process, evaluation, and timing of identity development, highlights the centrality of identity construction in the life period of emerging adulthood. Several emerging adulthood features can be applied specifically to identity development to explain the high rates of exploration and experimentation associated with emerging adulthood. As emerging adulthood is considered the age of identity explorations, it is expected that much experimentation with who one is should occur. Individuals question their values, beliefs, interests, skills, expectations, appearance, and place in life by engaging in new activities, roles, and situations that test them. Emerging adulthood is a time of possibilities that allows individuals a myriad of opportunities that have never before existed to them. This self-focused time allows individuals this ability to be reflective of these new experiences and begin to make sense of them in an effort to better understand themselves and construct a cohesive self.

The majority of emerging adult research is concentrated on college student samples, which can be critically limiting in understanding the identity formation process.

The utilization of these samples results in generalizability issues and under represents significant members of the emerging adulthood population. By its nature, the college experience itself is that of a moratorium. There exist endless options of coursework, extracurricular activities, work experiences, and career development opportunities with which to experiment. Opportunities to engage in a variety of social situations and develop interpersonal relationships are constant. While the college years capture a significant piece of emerging adulthood, it is likely that the identity formation process is an active exploration phase due to the environment in which these emerging adults live, study, work, and socialize. A concentration on solely this population could likely result in an overrepresentation of individuals engaging in active identity exploration and limits the inclusion of potentially identity committed and/or older individuals on the emerging adult spectrum. The present study's investigator seeks to address these issues by utilizing a community college student sample, which includes individuals of varying ages, ethnicities, socioeconomic status, and life experiences. This approach will likely ensure a more diverse and inclusive representation of emerging adults.

It is also important to note that there exists great variability among young people in terms of their transition to adulthood and their place in their identity formation process. Because of the different rates in which individuals approach this process, there is variability in the degree to which individuals consider themselves adults. As noted, some 18-year-olds may feel that they have reached adulthood, while some 25-year-olds have yet to begin their identity exploration process. Therefore, the present study proposes to investigate the degree of perceived emerging adulthood among emerging adults in an effort to extend our knowledge in this area beyond just age.

Identity and Psychological Distress

Erikson (1950, 1968) posited that identity is a fundamental component of psychological functioning and overall mental health. Identity is the frame of reference people use to provide their life with meaning, purpose, and direction. A clearly established sense of self is associated with increased self-esteem and better adjustment. Psychological difficulties and identity have been linked in psychology literature. Many studies have investigated the relationship between identity and aspects of mental health, including general psychological well-being, adjustment, everyday functioning, and more pathological issues (i.e. depression, anxiety, substance abuse). Psychopathology can manifest in both internal and external behaviors; studies have found links between these behaviors and identity development. Additional identity research has also focused on other constructs that contribute to overall well-being and successful everyday functioning. However, none has addressed the most relevant issues for this particular age group in a comprehensive manner. The present study seeks to examine anxiety, depression, alcohol use, reckless behavior, overall adjustment, and satisfaction with life, all areas deemed by previous research to be pertinent to the emerging adulthood stage. A summary of this existing research can be found below. While aspects of well-being are relevant to overall psychological health, concentrating on internalizing and externalizing behaviors and certain aspects of well-being most related to the emerging adulthood phase offer greater relevance to the present study and the investigation of identity and psychological distress.

Additionally, while an increasing number of studies investigate the exploration and commitment process and identity style, much of the relevant identity research utilizes

an identity status approach. As noted previously, while this data greatly contributes to our understanding of the identity formation process, an identity style approach expands our understanding by providing further insight into the ways in which individuals process information as they encounter the tasks of identity explorations. A focus on identity styles can help increase our knowledge of how the way in which individuals approach identity development tasks on a daily basis can lead to psychological difficulties. Additionally, the processes of exploration and commitment have received increasing attention (Luckyx et al., 2006b, 2008), displaying a further link between identity formation and psychological distress that can occur during the exploration process. What follows in this review of identity research that addresses mental health issues, is the utilization of both the identity status and style approach. The present study's focus on utilizing an identity style approach, along with the specific aforementioned areas of psychological distress intends to address a gap that exists in the body of identity research. A comprehensive investigation of issues related to mental health will increase the understanding of the type of psychological distress individuals may experience while navigating the identity formation process.

Overall psychological well-being

Berzonsky (2003) supports Erikson (1950, 1968) and Marcia's (1966) theories on identity formation, suggesting that identity commitment can enhance well-being and everyday functioning. Commitments provide people with a sense of purpose and direction. They can serve as a frame of reference within which behavior and feedback is monitored, evaluated, and regulated (Brickman, 1987; Nurmi, 1991). The strength of commitment has been positively linked to vigilant decision making and problem-focused

coping and negatively associated with procrastination, rationalization, other directedness, and the tendency to experience predecisional panic and public self-consciousness (Berzonsky, 1990, 1992a; Berzonsky & Ferrari, 1996). Weaker commitments have been found to be related to lower levels of agency and personal hardiness and higher levels of depression (Berzonsky, 2003). Identity commitment is associated with identity processing styles. Individuals with informational and normative processing styles hold stronger personal commitments and convictions than diffuse-avoiders (Berzonsky, 1990).

Berzonsky's informational identity processing style has been positively associated with need for cognition, cognitive complexity, self-reflection, problem-focused coping, vigilant decision-making, subjective well-being, and the openness, conscientiousness, and agreeableness dimensions of the Big Five personality factors (Berzonsky, 1990, 1992a). Normative-oriented individuals have been shown to be conscientious and agreeable, have a clear sense of direction, and a positive sense of well-being, but they have limited ability to tolerate ambiguity, a great need for structure, and they are closed to information that may threaten their personal belief and value systems (Berzonsky & Kinney, 1995; Berzonsky & Kuk, 2000). A diffuse-avoidant identity style has been positively associated with emotionally focused coping strategies, external control expectancies, self-handicapping, maladaptive decisional strategies, cross-situational variability, neuroticism, and depressive reactions, and negatively correlated with self-awareness, cognitive persistence, conscientiousness, and measures of well-being. If left unattended or unresolved, these features can lead to greater psychological difficulties and psychopathology. Research indicates positive correlations between a diffuse-avoidant processing style and eating disorders, alcohol and work-related problems, academic and

school-related problems, neuroticism and depressive reactions, and early onset of illegal drug and alcohol use (summarized in Berzonsky, 2003). Further identifications of these links are described below.

Coping strategies have been found to be related to identity processing style. The way in which individuals deal with stressors or situations that challenge their self-views will vary with their identity style. Individuals with more adaptive coping mechanisms, for example problem-focused and social support-seeking strategies, displayed an information processing style. Those with a diffuse-avoidant style displayed coping strategies that are less adaptive, such as avoidance and emotion-focused coping tactics (i.e. distancing, wishful thinking, and tension reduction). Those with a normative identity processing style also displayed less adaptive coping mechanisms (i.e. avoidance), but to a lesser degree than the diffuse-avoidant style (Berzonsky, 1992a; Berzonsky & Adams, 1999; Soenens et al., 2005). An inability to successfully cope in stressful situations can indicate psychological difficulties.

Additional research has shown further correlations between exploration and emotional adjustment. Meeus et al. (2005) found that adolescents who have stronger commitments are better emotionally adjusted, while adolescents indicating higher levels of exploration have lower levels of emotional adjustment. They suggest that commitment indicates a greater strength of self-definition and a clearer direction in life, therefore indicating greater happiness and well-being. They relate this notion to research on self-certainty and self-concept in which more clarity in these areas have been associated with lower levels of depression and high levels of self-esteem (Campbell, 1990; Campbell et al., 1996). Exploration, they propose, can have two different aspects to it. On the one

hand it can demonstrate motivation and personal strength to seek out new ways of viewing life, yet on the other hand it might also represent insecurity and ambiguity in their current life situation and sense of self, which can lead to emotional problems. This latter perspective is consistent with findings reviewed by Meeus et al. (1999) in which adolescents in the moratorium status, that with the highest level of exploration, showed the lowest level of emotional adjustment.

As discussed above, there exist mixed experiences among emerging adults in terms of psychological health and identity development. Some studies display a negative relationship between exploration and psychological distress constructs, while others show positive relationships. Luckyx et al. (2008) addressed this issue of inconsistency by further examining the exploration process, and proposing the notion of ruminative exploration. Ruminative exploration is a process by which an individual can feel overwhelmed by possibilities and stuck in a seemingly endless state of exploration. The natural progression of the identity development process requires a period of exploration which can include experiences of confusion and uncertainty, but mixed with positive feelings as well. For some, however, the exploration process may feel unremitting and overwhelming, taking on a ruminative state which can lead to distress.

Internalizing behaviors

Many studies have investigated identity and aspects of psychological distress utilizing Marcia's (1966) identity status categories. As summarized by Wautier and Blume (2004), individuals with a stronger sense of identity (achieved) indicate lower levels of anxiety and depression. Individuals in the moratorium status report the highest levels of anxiety, while those in the committed status (particularly foreclosure) report the

least amount of anxiety (Waterman, 1992). Johansson (1983) investigated levels of depression associated with identity status in the interpersonal and ideological identity domains. Individuals in the moratorium status felt more depressed than those with an achieved status in the areas of religion and occupation. Further, individuals in the moratorium status reported more depression than those who were achieved and foreclosed in the area of sexual intercourse.

Exploration typically is considered a healthy and adaptive process in identity formation models. However, as reflected in the research examples above, exploration has also been found to be associated with anxiety and depressive symptoms (Kidwell et al, 1995; Luyckx et al., 2006c). Upon further investigation of the identity exploration process, Luyckx et al., proposed a notion of ruminative exploration, which they have incorporated into their now five-dimensional identity formation model. For some, an extended moratorium could perpetuate confusion and intimidation due to perceived endless possibilities (Schwartz et al., 2005). Some individuals may find themselves “stuck” in an exploration process, dwelling over options and unable to make decisions. This ruminative cycle can be characterized by a repetitive and passive focus contributing to a feeling of hopelessness and uncontrollability of a situation (Nolen-Hoeksema, 2000). Further, self-rumination can be considered a type of negative, chronic, and persistent self-attentiveness motivated by fear and perceived threats, losses, or injustices to the self (Trapnell & Campbell, 1999). Luyckx et al. (2008) concluded that a Ruminative Moratorium, along with a Diffusion identity type (low on exploration in depth and identification with commitment, and moderate on exploration in breadth), is a less adaptive identity state; both yielded lowest on well-being.

Identity consolidation occurs in adolescence and young adulthood through the process of developing a sense of continuity with the past, meaning in the present, and direction for the future (Marcia, 1994). Identity consolidation sets a foundation for self-acceptance and self-esteem, which can form the basis for well-being (Crawford et al, 2004). Crawford et al. (2004) investigated Cluster B personality disorder symptoms (borderline, histrionic, and narcissistic symptoms) and their relationship with well-being during adolescence and early adulthood within an Eriksonian psychosocial developmental framework. Cluster B personality disorder symptoms were representative of identity diffusion. Higher personality disorder symptoms were associated with lower well-being in adolescence, and as individuals entered young adulthood, it was indicated that personality disturbances increased in strength in females, predominately associated with the development of intimacy. In the case of personality disorders, particularly borderline personality disorder, a clinical effect involves having a fragmented identity, where helping an individual develop and maintain a more consolidated sense of self is a central component of treatment.

Externalizing behaviors

Several studies have investigated the relationship between identity and alcohol and other drug use (AOD). Individuals may turn to alcohol or other drug use for various reasons. Some may become involved in AOD abuse as a self-destructive way of avoiding difficult issues in their lives. Others may be curious and looking to experiment. Another reason may be a part of forming a negative or antisocial identity (White et al., 2003). Marcia (1993) linked substance abuse to ego-identity status in that individuals who lack impulse control and look outside of themselves for solutions to current

problems are more likely to turn to substance abuse. The diffusion identity status has been linked to alcohol and other drug misuse (Jones, 1992; Jones & Hartmann, 1988). White, et al. (2003) explored the AOD recovery process as it relates to identity styles. In keeping with Berzonsky's (1990) identity processing styles, it was found that recovering individuals with a diffuse-avoidant style had shorter lengths of continuous abstinence, fewer recovery-oriented behaviors, lower quality of recovery, and less recovery process than those with alternative identity processing styles. It seems clear that where one is in the identity development process implicates more than simply enduring psychological distress, but that it affects individuals' ability with which to cope and manage their difficulties.

Identity has been studied as it relates to general maladjustment. Utilizing Berzonsky's (1990) identity processing styles paradigm, Adams et al. (2001) assessed the association between diffuse-avoidance, normative, and informational identity processing styles with conduct, hyperactivity, and emotional states. In a sample of junior and senior high school students, it was found that adolescents who escape the identity formation process through a diffuse-avoidant style are more likely to have conduct and hyperactivity disorders. Adolescents with a normative processing style, who internalize beliefs through significant others, or an informational identity processing style, who engage in active and deliberate exploration, are less likely to demonstrate conduct and hyperactivity problem behavior.

Overall, identity achieved individuals or those with an informational identity processing style tend to have a greater sense of well-being, better adjustment, and increased psychological functioning, while psychological difficulties and problematic

behaviors are typically associated with a diffused identity status or diffuse-avoidant identity processing style. Moreover, depression, anxiety, and general distress tend to be associated with identity exploration and the moratorium status (Luyckx et al., 2008, 2006b). It is important to note that according to Erikson, it is developmentally appropriate to explore and go through a moratorium period. Thus, it can be expected and is not uncommon for individuals to experience this distress as a natural part of their development. While it is normal, okay, and even important to experience distress (as humans, experiencing a full range of emotion is normal), it is essential for individuals to be able to tolerate and manage these difficult psychological emotions associated with identity distress, and to not become so overwhelmed by them that it leads to more severe psychopathologies. It may also be that high incidences of psychological distress in emerging adulthood are present due to the identity struggles inherent in this developmental stage.

Schwartz (2005) argues that there is a need to conduct identity research for the purpose of offering relevant and practical information for real world contexts. He recommends further studies beyond those simply of interest to identity researchers, but rather those which investigate the relationship of identity to psychological problems (e.g., anxiety, depression) and health risk behaviors (e.g., substance abuse, unsafe sexual behavior). The literature suggests a link between these constructs, however there is limited information that addresses the implications of this association and how mental health professionals may attend to these issues in their clients. The present study intends to offer increased awareness of the prevalence of identity issues and their influence on psychological difficulties, particularly addressing a comprehensive inventory of

psychological symptoms and potentially indicating further mental health problems. It also aims to offer practical recommendations for ways in which mental health professionals can further incorporate such developmental processes into their conceptualizations of treatment. Treating clients with this developmental perspective in mind may help provide a more accurate diagnosis and clinically relevant treatment.

While identity distress is not an issue for everyone, there is a consistent link in the literature between identity and psychological difficulties. However there is much work to be done. Identity research samples tend to be homogenous by typically utilizing undergraduate college students. As discussed above, there is much variability in individual developmental processes, suggesting the potential significance of factors beyond age or college student status that may influence the role that identity development has on psychological well-being. The present study expands the existing research by incorporating the role of one's individual developmental process, or one's own path of psychosocial growth and maturity, and examining how one's place within the emerging adulthood phase affects his or her identity development and mental health.

Emerging Adulthood and Psychological Distress

In the emerging adult population, well-being improves steadily from age 18 to age 26. Binge drinking and marijuana use increases between the ages of 18-22 and then decreases. Risk taking, depressive affect, theft-property damage, and physical aggression during emerging adulthood steadily decreases from age 18-26 (Schulenberg & Zarrett, 2006). However, with developmental and transitional challenges in mind, it is clear that individuals experience varying psychological and/or emotional difficulties during the emerging adulthood phase of life. In fact, the incidence of psychopathology increases

during this time (American Psychiatric Association, 2000). According to the National Survey on Drug Use and Health (Substance Abuse and Mental Health Services Administration [SAMHSA], 2003), the highest rate of serious mental illness (defined by a clinical diagnosis in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* [DSM-IV] and substantial functional impairment interfering with or limiting one or more major life activities, and established utilizing a screening of psychological distress) was among 18-25 year olds; these rates were somewhat higher than in 2002. While psychological distress is not an issue for everyone, it is clear that there is a significant link between well-being and the emerging adulthood stage of life.

Because emerging adulthood is a relatively young, but growing, domain, limited research exists that examines mental health issues during this critical developmental phase. Out of convenience, access, and previous developmental theory, much research utilizes college student samples when addressing issues among the population that is now considered emerging adults. However, some research does exist in other related areas. For example, it is known that mental health issues are expressed differently in childhood, adolescence, and adulthood. Berry (2004) argues “if it is agreed that emerging adulthood represents a unique developmental phase, then it may be reasoned that depression will be expressed uniquely in this developmental phase, just as it is in childhood, adolescence, and adulthood” (p. 56). This may indeed hold true for other psychological issues as well. There exists extensive research on mental health issues, psychopathology, and psychological well-being within the frame of the emerging adult years. As mentioned in the previous section, the present study intends to address overall psychological distress by assessing a variety of dimensions of mental health difficulties and well-being to obtain

a broad and comprehensive overview of psychological distress experienced by emerging adults. An overview of relevant research related to psychological distress in emerging adulthood can be found below, again organized by overall psychological well-being, internalizing behaviors, and externalizing behaviors.

Overall psychological well-being

According to Schulenberg et al. (2003), the transition to adulthood is marked by psychological changes such as increased emotional regulation and changes in roles (i.e. employment, marriage). As individuals move in and out of roles in pursuit of developmental tasks, successful adaptation and adjustment remains a general goal. Previous research has identified four areas of psychosocial adjustment as particularly relevant in early adulthood: prosocial competence (i.e. interpersonal relationships), internalizing problems (i.e. emotional distress), externalizing problems (i.e. criminal offenses), and cognitive competence (i.e. educational achievement) (Forehand et al., 1994; Summers et al., 1998). Regarding psychological adjustment, Regier et al. (1988) reported a higher incidence of mental disorders (i.e., anxiety) in young adults than in their older counterparts. Additionally, Jessor, Donovan, and Costa (1991) stated that during young adulthood, critical decisions are made about engaging in conventional versus antisocial behaviors. Further, interpersonal relationships become increasingly important during early adulthood (Duck, 1983) and well-being has been found to be significantly associated with intimacy in female adolescents and young adults (Crawford et al., 2004). The aforementioned issues can certainly contribute to depression, anxiety, stress, loneliness, psychosocial adjustment, academic achievement and satisfaction, and many other difficulties. It is important that these issues be addressed during the emerging

adulthood phase as they could lead to more severe psychological disturbances that could cause significant impairments in functioning and in fact be more pathological, distressing, and/or dangerous.

Internalizing behaviors

Sources of depression for adolescents can include harm to the self by others, separation from someone close, conflict with someone close, loneliness, and feelings of incompetence (see Nelson, 2005). The aforementioned situations are all typical of emerging adulthood. Emerging adulthood is a time when individuals become independent and separate from their parents, friendships, and romantic partners, relational renegotiation processes that can be painful, lonely, and confusing. Research suggests that separation can cultivate depression (Bowlby, 1973), as well as lead to loneliness, which can initiate depression (Harter, 1999). Finally, in times of transition, feelings of incompetence are typical, a likely experience for emerging adults who are experimenting with new identities and experiences (Wigfield et al., 1991).

There have been some studies that examine depression in the transition to adulthood. Reinherz and Giaconia (1999) investigated childhood psychosocial risks and adult functional impairments associated with depression during the transition to adulthood. Reinherz et al. (2003) identified childhood and adolescent familial and behavioral-emotional factors predicting depression during the transition to adulthood in individuals ages 18-26. Of the participants in their study, 23.2% experienced major depression. Turner, Taylor, and van Gundy (2004) studied ethnic comparisons with regard to personal resources and depression in the transition to adulthood. Their findings suggested that accounting for ethnic differences, there is strong evidence for both direct

and stress-buffering effects of personal resources with regard to depression. Further, Berry (2004) linked a relationship between depression and emerging adulthood from a theoretical standpoint, discussing the merger of depression and development theory within the context of the unique emerging adulthood characteristics.

Several psychosocial constructs were investigated over a seven-year trajectory of emerging adulthood (ages 18-29) (Galambos et al., 2006). It was found that depressive symptoms and anger decreased over time, while self-esteem increased. Further, increases in social support and marriage were associated with increased psychological well-being, while longer periods of unemployment were associated with higher rates of depression and lower self-esteem. These findings regarding depression are consistent with previous research indicating that depression is greatest in the adolescent years and becomes less prevalent into adulthood (Wade & Cairney, 1997; Wight et al., 2004). Further, both cross-sectional (Kling et al., 1999; Robins et al., 2002) and intraindividual (Baldwin & Hoffman, 2002; Roberts & Bengtson, 1996; Schulenberg et al., 2004) data on self-esteem in adolescence and young adulthood suggest that self-esteem should be on the rise as individuals move through their emerging adulthood years. Regarding emotional regulation, anger, along with other negative emotionality (i.e. reactive stress, alienation, and aggression, neuroticism and negative affect) has been found to decrease as individuals progress through their 20s (McGue, Bacon, & Lykken, 1993; McCrae et al., 1999; Watson & Walker, 1996).

Externalizing behaviors

With all of the choices associated with exploration and decisions involved in navigating the developmental tasks of this period, emerging adulthood can be quite a

volatile time. According to Arnett (2000), emerging adults can experience high levels of personal freedom (accompanied by decreased parental monitoring) and low levels of social responsibility, often reflected in risk-taking and reckless behavior. Problem behavior in adolescence, such as substance abuse, unsafe sexual behavior, vandalism, truancy, and unsafe driving is well studied, while it has only recently begun to be explored among the emerging adult population (Arnett, 1991, 1996, 2005; Greene et al., 2000; Jonah, 1990). Not only are risk-taking and reckless behaviors potentially dangerous or harmful in and of themselves, but can also be indications of more severe psychopathology.

Sensation seeking, a biologically-based dimension of personality representing a need for novel, varied, and complex experiences (Zuckerman, 1979), is considered one of the most consistent predictors of adolescent and emerging adult substance use (Arnett, 2005). Bradley and Wildman (2002) examined sensation seeking and peer pressure of emerging adults' risk and reckless behaviors. Arnett (1992) defined risk behaviors as adventurous and thrill-seeking acts that are socially acceptable, such as motorbike riding, mountaineering, and bungee jumping. Reckless behavior, however, refers to behaviors that are not socially approved and that have greater potential for negative consequences and where precautions could have been taken, but were not, for example substance use, dangerous driving, and promiscuous sexual behavior. Results showed to be consistent with previous related studies, as well as Arnett's emerging adulthood theory (2000), in that some types of reckless behavior are higher among emerging adults than in adolescents. Specifically, in the aforementioned study, older emerging adults (20-25 years) indicated increased reckless sex and substance use as compared to the younger

emerging adults in the study (18-19 years). Additionally, more male than female emerging adults were found to engage in risk and reckless behavior. Results also suggest that antisocial peer pressure continues to influence individuals into the emerging adulthood years. Lefkowitz et al. (2004) studied religiosity, sexual behaviors, and sexual attitudes during emerging adulthood. Their results indicate that religious behavior is a strong predictor of sexual behavior. Specifically, individuals who participate more in religious activities tend to engage in less sexual activity during emerging adulthood. These findings suggest that emerging adults who have either committed to or are experimenting with having an observant and active religious identity are less likely to engage in risky or reckless sexual behaviors.

Substance use and abuse rates, as well as prevalence of clinical diagnosis of substance dependence/abuse are highest among emerging adults than any other age group (Substance Abuse and Mental Health Services Administration [SAMHSA], 2003). Arnett (2005) argues that substance use may be related to identity exploration in two ways—individuals may experiment with substances as a part of their range of explorations; they may also abuse substances as means of coping with the identity confusion they may experience. Instability in the areas of residence, relationships, school, and work is prevalent in emerging adulthood. This disruption may cause sadness and/or anxiety, which in turn could lead to increased substance use for self-medication. Substance use has been found to increase in emerging adulthood due to greater self-focus and less social control (Kypri, McCarthy, Coe, & Brown, 2004). Emerging adults are more self-focused, thus social relationships and networks, which act as forms of social control (i.e. engaging in socially acceptable and approved behavior) tend to be more

transient and unstable. Additionally, the stress of enduring an unstable social network, thus lacking social control, could lead to increased substance use, as could the strong influence and encouragement to use substances from peers who have a penchant for substance use. Emerging adults view themselves as being “in-between”—not an adolescent, yet not yet an adult. Research has shown that a majority of emerging adults view “avoiding drunk driving” as necessary for adulthood, yet fewer consider “avoiding becoming drunk” and “avoiding illegal drugs” a criteria for adulthood (Arnett, 1998a, 2001). This may implicate that substance use is an acceptable behavior at this time in their life, but unacceptable once adulthood is reached. Emerging adulthood is considered to be an age of possibilities—a time when individuals have the opportunity to make significant changes in their lives, as well as an attitude of optimism and high hopes. Regardless of a negative outlook on a current life situation, most emerging adults feel that life will work out well for them in the long run (Arnett, 2005). This frame of mind relates to emerging adults’ tendency for high substance use. Emerging adults have an optimistic bias (Weinstein, 1989) in that because of their high expectations for life, they may not believe that negative consequences of drug use could potentially happen to them.

It is apparent that emerging adults are a diverse group. Throughout their transition to adulthood, they perhaps fall along a continuum of their “degree of ‘adulthood’ or ‘emerging adulthood.’” Due to a myriad of psychological, social, and environmental circumstances, they can vary in the challenges and struggles that they encounter as they navigate the developmental changes and experiences of this time. Therefore, it is difficult to generalize this population. However, the present study offers a way of making sense of and conceptualizing the identity formation process for emerging

adults. It seems clear that difficulties encountered at this time are not correlated with age, per se, but instead may have much to do with the extent to which individuals consider themselves adults or emerging adults along a spectrum. Not all emerging adults have significant difficulties, however, the ones that do seem to struggle with clinical and sub-clinical issues of depression, anxiety, substance abuse, and other risk-taking behavioral problems.

Research Questions and Hypotheses

Limited research exists that has looked at mental health in relation to identity within emerging adulthood or within a psychosocial developmental context more generally. Previous research recognizes significant connections between the search for identity, mental health, and emerging adulthood, however no study investigates how these three constructs may be linked within a developmental model. Moreover, identity research has yet to consider an individual's perceived degree of feeling like an emerging adult as a factor influencing the identity development process and psychological difficulties that may arise within its context. The present study investigates the moderating effect of one's perceived emerging adulthood on the relationship between identity development and psychological distress and well-being.

Research question 1: Does perceived emerging adulthood moderate the relationship between exploration and commitment and psychological distress in emerging adulthood? The construct of exploration consists of three variables—exploration in breadth, exploration in depth, and ruminative exploration. The first hypothesis was that exploration in breadth would be negatively associated with psychological distress and positively associated with psychological well-being for individuals who perceive

themselves as emerging adults. Emerging adulthood is a developmentally appropriate time for exploration (Arnett, 2000). While at times individuals can face challenges, it is normal and generally not significantly stressful for emerging adults to explore alternatives in terms of goals, values, and beliefs before making a commitment (Luyckx, et al., 2008).

The second hypothesis was that exploration in depth would be negatively associated with psychological distress and positively associated with psychological well-being for individuals who perceive themselves as emerging adults. Similarly to exploration in breadth, exploration in depth is a component of the natural identity development process in emerging adults (Arnett, 2000; Luyckx et al., 2008). Exploration in depth expands the normal identity development process by encompassing an in-depth evaluation of one's existing commitments and consistency with the individual's internal standards (cf. Kerpelman, Pittman, & Lamke, 1997; Luyckx et al., 2008; Meeus, Iedema, & Maassen, 2002). This process is consistent with Berzonsky's (2003) findings in a study that investigated identity style and well-being, indicating that individuals with committed identities will display lower levels of psychological distress.

The third hypothesis was that perceived emerging adulthood would not moderate the link between ruminative exploration and psychological distress and well-being. It is expected that ruminative exploration would be positively associated with psychological distress and negatively associated with psychological well-being both for individuals who perceive themselves as emerging adults and those who do not. By definition, ruminative exploration involves maladaptive exploratory processes which include heightened anxiety and depressive symptoms (Luyckx et al., 2008). This process of ruminating over choices

and alternatives accessible during a time of exploration is likely to lead to psychological distress.

The construct of commitment consists of two variables—commitment making and identification with commitment. The fourth hypothesis was that commitment making would be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults. Emerging adulthood is a time of moratorium, a natural setting for individuals to explore life alternatives. Therefore, individuals with committed identities are more likely to be those of a foreclosed status (Marcia, 1966) or normative processing style (Berzonsky, 2003) than identity achieved (Marcia, 1966) or an informational processing style (Berzonsky, 2003). Further, as individuals navigate the exploration process, identity confusion is developmentally appropriate during this phase. Identity confusion can result in more incidences of psychological distress (Meeus et al., 1999; 2005).

The fifth hypothesis was that identification with commitment would be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults. Identification with commitment is the degree to which individuals feel certain about, can identify with, and internalize their choices (cf. Bosma, 1985; Luyckx et al., 2008; Ryan & Deci, 2000; Waterman, 1990). Because emerging adulthood is considered a time of exploration, individuals who identify with their commitments may likely do so prematurely, or have not fully gone through a thorough exploration process, indicating a foreclosed identity status (Marcia, 1966) or normative identity processing style (Berzonsky, 2003). This

discrepancy can indicate identity confusion and result in increased psychological distress (Meeus et al., 1999, 2005; Berzonsky, 2003; Higgins et al., 1985).

Research question 2: Does perceived emerging adulthood moderate the link between identity processing style and psychological distress in emerging adulthood? The construct of identity processing style consists of three variables—informational, normative, and diffuse-avoidant. The sixth hypothesis was that perceived emerging adulthood would not moderate the link between an informational identity processing style and psychological distress and well-being. It was expected that an informational identity processing style would be negatively associated with psychological distress and positively associated with psychological well-being for individuals who perceive themselves as emerging adults. An informational processing style consists of a normative and healthy approach of intentional exploration followed by mindful commitment (Berzonsky, 2003). It is developmentally normal and appropriate for individuals to experiment and consider various alternatives before settling into a committed identity (Erikson, 1950; 1968). While some confusion is inherent in an exploration process, the extent of psychological distress that it may cause is insignificant (Arnett, 2000; Berzonsky, 2003; Meeus et al., 1999; 2005).

The seventh hypothesis was that perceived emerging adulthood would moderate the link between a normative identity processing style and psychological distress and well-being. It was expected that a normative identity processing style would be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults. A normative processing style includes decisions and experiences based on external

expectations, rather than coming from an individual him or herself (Berzonsky, 2003). Individuals on this path to identity achievement will likely experience identity confusion which can result in psychological distress. As previously discussed above, because emerging adulthood is considered a time of exploration, individuals who identify with their commitments may likely do so prematurely, or have not fully gone through a thorough exploration process, indicating a foreclosed identity status (Marcia, 1966) or normative identity processing style (Berzonsky, 2003). This discrepancy can indicate identity confusion and result in increased psychological distress (Meeus et al., 1999, 2005; Berzonsky, 2003; Higgins et al., 1985).

The eighth hypothesis was that perceived emerging adulthood would not moderate the link between a diffuse-avoidant identity processing style and psychological distress and well-being. It was expected that a diffuse-avoidant identity processing style would be positively associated with psychological distress and negatively associated with psychological well-being both for individuals who perceive themselves as emerging adults and those who do not. A diffuse-avoidant approach consists of a process of little or no exploration, without intentional or mindful commitment (Berzonsky, 2003). This inactive decision-making without intentional exploration is an indication of identity confusion which can lead to significant psychological distress (Meeus et al., 1999; 2005; Berzonsky, 2003; Higgins et al., 1985).

Limitations

There are inherent limitations in the present study. A first limitation involves the diversity of the sample. Participants will be recruited through Washington, D.C. area community colleges. By approaching current community college students, some

diversity of age and educational and employment experiences is represented across the emerging adulthood years. However, this sampling frame is limited to community college educated individuals, omitting the many emerging adults who navigate this transition to adulthood on a different path, which could include individuals with some higher education, four-year college, or graduate degrees, professional school experience, work experience immediately after high school, those who do not complete high school, individuals who engage in military service, individuals raising a family, and those who have been incarcerated at a young age. Future research that includes emerging adults from a wider range of society would broaden the understanding of these processes in more universal developmental terms.

The present study included participants associated with community colleges located in a major metropolitan area with a high representation of ethnic, cultural, and socioeconomic diversity among its students. Although this sample provided diversity to some extent, the experiences collected are still limited to individuals who are community college educated in the United States. More research has recently explored emerging adulthood within the contexts of different countries and cultures (for examples, see Arias & Hernandez, 2007; Buhl & Lanz, 2007; Facio & Micocci, 2003; Nelson, Badger & Bo Wu, 2004; Vartanian, 2003; Walsh et al., 2005). Continued research in the areas of ethnic and cultural diversity both within and outside of Western culture is encouraged. Further information on the emerging adult years among different cultures with varying values, customs, practices, and expectations will increase our understanding of emerging adulthood as a universal developmental process.

A second limitation involves the design of the present research. The present study is cross-sectional in design—data is collected from just one group of individuals at one point in time. This sampling approach is limiting in understanding the transition to adulthood process as individuals move through it. Future research that utilizes a longitudinal approach would offer further insight into emerging adults' individual experiences and internal processes at various points in time along the spectrum of the emerging adult years.

A third limitation to the present study is the focus on individuals who perceive themselves as emerging adults. Individuals who do not consider themselves emerging adults therefore may feel either closer to adolescence or closer to adulthood. Since the IDEA instrument utilized in the study only measures identification with emerging adulthood, it is unclear to which end of the spectrum those who do not perceive themselves as emerging adults may fall. Further investigation of the identity development process and psychological distress among individuals in the 18-29 year old age range who do not consider themselves emerging adults is recommended for future research.

CHAPTER 3: OVERVIEW OF METHODOLOGY

The purpose of the present study was to investigate the presence of psychological distress that may exist for emerging adults (Arnett, 2000) as it relates to their identity development. Although each of the present study's areas of interest—emerging adulthood, identity development, and psychological distress—has been substantially and/or increasingly studied in isolation, simultaneous links between these constructs have yet to be made. The goal of the current study was to examine the relationships between identity formation and psychological difficulties within the framework of the emerging adulthood developmental phase and the unique “crises” with which it presents. A further aim of this research was to offer clinically relevant insights and recommendations to mental health practitioners who work with emerging adults struggling with identity related issues by highlighting innovative connections between psychological distress and psychosocial developmental issues.

Research Questions and Hypotheses

The present study explored the extent to which each of Luyckx et al.'s (2006b, 2008) exploration and commitment variables (exploration in breadth, exploration in depth, ruminative exploration, commitment making, and identification with commitment) and Berzonsky's (1990) identity processing style variables (informational, normative, and diffuse-avoidant) are associated with levels of various aspects of psychological distress during the transition period from adolescence to adulthood (emerging adulthood). The present study specifically examined the moderating effect of one's perceived emerging adulthood on the relationship between identity development and psychological distress.

Research question 1: Does perceived emerging adulthood moderate the relationship between exploration and commitment and psychological distress in emerging adulthood? The construct of exploration consists of three variables—exploration in breadth, exploration in depth, and ruminative exploration. The first hypothesis was that exploration in breadth will be negatively associated with psychological distress and positively associated with psychological well-being for individuals who perceive themselves as emerging adults. The second hypothesis was that exploration in depth will be negatively associated with psychological distress and positively associated with psychological well-being for individuals who perceive themselves as emerging adults. The third hypothesis was that perceived emerging adulthood will not moderate the link between ruminative exploration and psychological distress and well-being. It was expected that ruminative exploration would be positively associated with psychological distress and negatively associated with psychological well-being both for individuals who perceive themselves as emerging adults and those who do not. The construct of commitment consists of two variables—commitment making and identification with commitment. The fourth hypothesis was that commitment making will be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults. The fifth hypothesis was that identification with commitment will be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults.

Research question 2: Does perceived emerging adulthood moderate the link between identity processing style and psychological distress in emerging adulthood? The

construct of identity processing style consists of three variables—informational, normative, and diffuse-avoidant. The sixth hypothesis was that perceived emerging adulthood will not moderate the link between an informational identity processing style and psychological distress and well-being. It was expected that an informational identity processing style would be negatively associated with psychological distress and positively associated with psychological well-being for individuals who perceive themselves as emerging adults. The seventh hypothesis was that perceived emerging adulthood would moderate the link between a normative identity processing style and psychological distress and well-being. It was expected that a normative identity processing style would be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults. The eighth hypothesis was that perceived emerging adulthood would not moderate the link between a diffuse-avoidant identity processing style and psychological distress and well-being. It was expected that a diffuse-avoidant identity processing style would be positively associated with psychological distress and negatively associated with psychological well-being both for individuals who perceive themselves as emerging adults and those who do not.

Research Procedures

Design

The present study's research questions are primarily associational, but require descriptive exploration as well. The research questions are correlational, as they answer queries about the relationships between variables within the three constructs investigated in this study—identity, psychological distress, and perceived emerging adulthood. Data was

collected from just one group of individuals at one point in time, allowing for a cross-sectional research design. Multiple regression analysis was used to address the research questions. A strength of the present study's design is that it is the first to explore potential associations between the aforementioned variables. A primary weakness is that because it is not experimental in design, the possibility of other factors (i.e. developmental, environmental, or circumstantial) that may contribute to psychological difficulties reported by participants, are not controlled, which could potentially skew the results.

Sampling

Participants. The present study surveyed a sample of Washington, DC community college educated emerging adults. Emerging adulthood can be conceptualized as a phase of development that bridges adolescence and young adulthood. This transition to adulthood consists of a process in which one moves from not identifying oneself as an adult to identifying oneself as an adult, and in between passes a transitional stage where one feels somewhat like an adult and somewhat not like an adult. During this period individuals are in the process of developing the capacities, skills, and qualities of character deemed by their culture as necessary for completing the transition to adulthood (Arnett, 1998). The age range of this population typically includes individuals ages 18-29 (Arnett, 2000). In addition to community college educated individuals, the emerging adult population also includes individuals who are enrolled in or have graduated from a four-year college or university, working professionals, or individuals whose highest level of education obtained is limited to high school or some secondary or primary school. The general population identified for the present study is

limited to community college students in an effort to make the sample more homogeneous, yet diverse in terms of ethnicity, age, and life experience. A community college sample is likely to be more reflective of a general community sample of emerging adults than that of university affiliated emerging adults.

The specific population under investigation for the present study consisted of emerging adults ranging in age from 18-29 and included a sampling frame of community college students from psychology and other social science classes at three community colleges in the Washington, D.C. metropolitan area. Northern Virginia Community College (NOVA) is the second largest community college in the nation and consists of multiple campuses and a student population of over 60,000. Approximately 20% of the student population is international and represents 150 different nations. The median age of NOVA students is 24 years. The ratio of females to males is about 54% to 46%.

Montgomery College is a multi-campus institution that serves nearly 60,000 students annually through both credit and non-credit continuing education programs.

Montgomery College has a diverse student body, including enrolled students from every continent and 170 countries from around the world. Approximately 64% of students are non-white. The average age of Montgomery College students is 26 years.

Approximately 54% of the student population is female. Howard Community College includes a student body of 7,000 seeking degrees and 14,000 taking non-credit courses for continuing education. Approximately 1150 students enrolled for credit are from 104 different countries. The median age of Howard Community College students is 21 years. Approximately 58% of the student body is female.

These groups of individuals represent only a small portion of community college educated emerging adults; therefore demographic variation from the general community college educated emerging adults in the U.S. (sampling error) can be expected. For example, these particular institutions are located in geographic region with a substantial international community and cultural diversity. Therefore, the sampling frame contained overrepresentations in the areas of cultural and ethnic diversity than what exists in the general U.S. emerging adult population.

The sample consisted of individuals who chose to participate and respond to the invitation, therefore resulting in a nonrandom and potentially, biased sample. For example, certain respondents may have possessed an interest in or struggle with identity development, transition to adulthood, and/or mental health issues, and therefore identify with the title or description of the study and consequently increase the sampling error. In an effort to minimize this biased selection, precautions, such as careful wording of the study's introduction and description, were critical. Although participants in the sample may be biased, this was not of substantial concern because the investigation was concerned not with who responds to the request for participation in the research, but for those who did respond, whether or not there is a link between their attitudes and symptomatology.

Contact with community college social science faculty was initiated via an email with a brief description of the study, encouraging them to invite their students to participate. Interested faculty members were provided with an introductory letter and the survey website link which they then distributed to their students as an optional research opportunity in which to become involved (Appendix A). Respondent apprehension with

regard to participating in the present study could involve concerns about confidentiality, time constraints, or resistance to potentially discovering personal information about oneself that is perceived as threatening. The sampling frame consisted of approximately 1500 students. Three hundred two individuals responded, resulting in a response rate of approximately 20.1 %. Forty-eight respondents were removed from the sample because their age was beyond the 18-29 years age range. Thus, N=254 for the present study.

Data Collection

Materials. The survey utilized in the present study consisted of eight pre-existing instruments and original demographic questions. Section A of the survey consisted of the Inventory of the Dimensions of Emerging Adulthood (IDEA) (Reifman, Arnett, & Colwell, 2007), which assesses identification with transition-to-adulthood themes. The IDEA explored individual differences in self-identification with the processes of emerging adulthood, either between or within broad age groups. IDEA items were designed to address the five dimensions of emerging adulthood—the age of identity explorations, the age of instability, the self-focused age, the age of feeling in-between, and the age of possibilities (Arnett, 2004a, 2004b). Also included in the instrument is an additional dimension, *other-focus*, which represents a counterpoint to self-focus. Exploratory and confirmatory factor analysis largely supported the five-subscale dimensions of emerging adulthood, along with the other-focused supplementary subscale. Internal consistency (alpha) reliability coefficients for the subscales in the current sample were acceptable, ranging from .67 to .81. The Chronbach's alpha for the total IDEA scale was .90. The survey author reported that test-retest reliability correlations (over a one-month interval) ranged from .64-.67, with the exception of the “feeling in-between”

subscale (.37). In its introductory study assessing the application of the IDEA, respondents in their 20s identified with relevant themes to a greater extent than did their younger and older counterparts. Overall, the IDEA has demonstrated some meaningful correlations with existing emerging adulthood constructs in the literature. This portion of the survey attended to the developmental aspects of the present research.

Section B of the survey consisted of the Dimensions of Identity Development Scale (DIDS; Luyckx et al., 2008). The DIDS was a 25-item self report measure that addresses the five identity dimensions proposed by Luyckx et al. (2006b)—commitment making, identification with commitment, exploration in breadth, exploration in depth, and ruminative exploration—in the domain of general future plans (5 items for each dimension). The DIDS was developed by revising items from the Ego Identity Processing Questionnaire (EIPQ; Balistreri et al., 1995), the Utrecht-Groningen Identity Development Scale (U-GIDS; Meeus, 1996), the revised Identity Style Inventory (ISI-3; Berzonsky, 1992), and the Personally Expressive Activities Questionnaire (PEAQ; Waterman, 1993) to tap into the five aforementioned identity dimensions. Items were answered on a 5-point Likert-type scale ranging from 1 (not at all) to 5 (extremely) as to how much each problem (i.e. nervousness and feeling tense) distressed them during the last week. Chronbach's alphas for the five subscales in the current sample were acceptable, ranging between .71-.89. This section of the survey attended to the constructs of exploration and commitment, addressed in the second research question.

Section C of the survey was comprised of the Identity Style Inventory (ISI-3; Berzonsky, 1992a, 1992b), a self-report instrument that assessed the three identity styles (an 11-item informational subscale, a 9-item normative subscale, and a 10 item diffuse-

avoidant subscale) and includes a 10-item commitment subscale. The ISI-3 has been utilized extensively in studies with various samples and cultures which has demonstrated the validity of the measure (for reviews, see Berzonsky & Adams, 1999; Berzonsky, Macek, & Nurmi, 2003). The survey author reported that test-retest reliabilities over a 2-week period (N=94) were estimated to be .87 for informational, .87 for normative, and .83 for diffuse-avoidant (Berzonsky, 1997). Internal reliabilities (coefficient alphas) for the current sample were acceptable with .66 for informational, .66 for normative, and .80 for diffuse avoidant. Participants respond with a 5-point Likert-type format (1 = *strongly disagree* through 5 = *strongly agree*). Any overlapping items with the DIDS (Luyckx, et al.) have been omitted from the ISI-3 section of the survey so as to avoid redundancy.

Several instruments were utilized to measure both internalizing (anxiety and depression) and externalizing (alcohol use and reckless behavior) behavioral aspects of psychological distress. Overall positive adjustment and satisfaction with life was also measured to provide an ancillary indication of psychological well-being. Section D of the survey was comprised of the Kessler Psychological Distress Scale (K10; Kessler et al., 2002), a 10-item self-report questionnaire designed to measure the level of distress and severity associated with psychological symptoms in population surveys over the past four weeks. Participants responded with a 5-point scale (1 = *none of the time* through 5 = *all of the time*). Scores range from 10-50 and are categorized into three levels: low (10-15), moderate (16-21), and high (22-50). Factor structure analysis concluded that the K10 represents four first-order factors of nervous, agitation, fatigue, and negative affect, and two second-order factors of anxiety and depression (Brooks, Beard, & Steel, 2006).

High levels of internal consistency and concurrent validity have been established for the K10. The Chronbach's alpha for the K10 scale in the current sample was .90.

Section E of the survey consisted of the Alcohol Use Disorders Identification Test (AUDIT; Babor et al., 1989), a 10-item scale that includes questions about recent alcohol use, alcohol dependence symptoms, and alcohol related problems. The AUDIT's development and evaluation over the course of two decades has found to be an accurate measure of risk across age, gender, and culture. Studies indicated high internal consistency and high test-retest reliability ($r = .86$). The Chronbach's alpha for the AUDIT in the current sample was .85. The AUDIT has shown to have strong validity based on a variety of studies displaying high correlations with other alcohol problem screening measures such as the Michigan Alcohol Screening Test (MAST) ($r = .88$) and the CAGE (.78).

Section F of the survey included the Reckless Behavior Questionnaire (RBQ; Arnett, 1989) to assess risk-taking and reckless behavior and illicit drug use. In this 10-item questionnaire, respondents indicated on a scale how many times they have participated in various behaviors during the past year, ranging from never to more than 10 times. The survey author reported that test-retest reliability in a college student sample was .80 three months after initial testing. Test-retest correlations for individual items ranged from .51 to .82. Internal reliability for the current sample was acceptable at .79. One- and two-factor models provided evidence of criterion and construct validity.

Section G of the survey was comprised of the Schwartz Outcome Scale (SOS-10; Blais et al., 1999), a 10-item assessment instrument designed to measure a broad domain of psychological health. Participants were asked to indicate how they generally have been

feeling over the last seven days with responses ranging on a scale from 0 (never) to 6 (all or nearly all of the time). Initial reliability and validity studies reported strong internal consistency (Chronbach's alpha = .96) and item-to-scale correlations of .74 to .90 in a psychiatric patient population. The internal reliability in the current sample was .93. A 1-week test-retest reliability coefficient of .87 was found in a non-patient population. Factor analysis showed one factor that accounted for 76% of the variance. Convergent and divergent validity was shown to be strong with measures of hopelessness, self-esteem, positive and negative affect, mental health, fatigue, life satisfaction, psychiatric symptoms, and desire to live. Further studies on non-clinical college student populations indicated high reliability and validity and an appropriate instrument for measuring general adjustment and psychological well-being (Young et al., 2003).

Section H of the survey consisted of the Satisfaction with Life Scale (SWLS, Pavot & Diener, 1993), an instrument designed to measure global satisfaction with one's life. This 5-item scale asked participants the extent to which they agree or disagree with each statement ranging from 1 (strongly disagree) to 7 (strongly agree). The SWLS showed strong internal reliability with a coefficient alpha of .87 in the current sample. The survey author reported moderate consistency with a 2-month test-retest stability coefficient of .82, as reported by the survey author. Normative data showed good convergent validity with other scales and with other types of assessments of subjective well-being and showed discriminant validity from emotional well-being measures. The SWLS was recommended to complement psychopathology or emotional well-being scales because it assesses an individual's subjective cognitive judgment of his or her own life.

Section I of the survey was made up of general demographic questions relevant to the emerging adulthood life stage. This section addressed age, gender, ethnicity, student status, current grade point average, high school grade point average, degree status, number of credit hours completed, English as a second language (ESOL) status, employment status, relationship status, family status, and socioeconomic status.

Procedures. Individuals for the sample were recruited via connections with social science faculty members at NOVA, Montgomery College, and Howard Community College. The proposed study's investigator utilized faculty contacts at these community colleges and provide them with the website address where the study's survey can be accessed and shared with students as an optional exercise. Because the sampling frame consists of emerging adults (ages 18-29), it is assumed that this population is computer savvy enough to easily manage the tasks required to complete and submit survey data through this medium. The electronically administered emerging adulthood survey was accessible through Survey Monkey, a web survey tool, to Washington, D.C. community college students. Data collection took place in the fall semester of 2009.

The initial distribution request consisted of the following included in an email: A cover letter that entails an introduction to the research and the researcher, the purpose and significance of the study, a realistic description of the ease, length of time, and costs required for participation, assurance of confidentiality, a statement indicating how the information will be used, the timeframe for which the potential respondent has for submission, and the incentive for doing so. This overview of the study was also provided as an introduction to the survey once the participant has accessed the survey website. An informed consent discussed in further detail the potential costs, benefits, risks, and gains

for participating in the study. This informed consent followed the survey introduction on the survey website and required the participant to provide an “electronic signature” (indicating that by moving forward with the survey, they are providing their consent to participate). The survey consisted of nine sections representing eight pre-existing questionnaires and demographics, as well as a brief instruction set for each section. A resource list was provided at the conclusion of the survey and included both sources by which individuals may find further information on any of the psychosocial or mental health topics included in the survey, as well as psychotherapeutic and psycho educational referrals for further support if desired (Appendix B).

As previously mentioned, the sampling frame consisted of community college students from social science classes at NOVA, Montgomery College, and Howard Community College. All students from the classes were invited to participate in the study, while only those within the 18-29 year old age range were included. There were 302 total respondents, however individuals over the age of 29 were omitted, resulting in a sample of N=254 for the current study.

The costs of the survey were minimal. The present research study relied heavily on electronic communication and transmission. Submission of completed surveys were transmitted via the internet, therefore maintaining low monetary costs. A minimal cost of a fee to utilize an internet based survey distribution tool (Survey Monkey) was the only monetary expense.

A first draft of the present study’s survey (in a hard copy format) underwent an expert review by an instructor for a doctoral course in survey research and the investigator’s colleagues. Feedback included clarification regarding specific survey items, format,

appearance, and pretesting recommendations. As a result of this expert review, several changes were made, particularly to the format of the survey. Specifically, several demographic survey items were revised to offer increased response options and to accommodate a more inclusive feel. Spacing between items and response options were adjusted, which increased the length of the survey, but offered increased clarity and improved aesthetics. Headings at the top of each response option column were added to every page to avoid potential confusion and make response choices clearer. These revisions were incorporated into the format created for the electronic version of the survey.

Two additional efforts were made in order to pretest the present study's survey. First, twelve acquaintances and colleagues of the investigator were contacted via an email that included the survey as an attachment. These individuals were asked to role-play an intended respondent (community college educated emerging adults, ages 18-29), complete the survey, and respond to the investigator with feedback by answering the following eight guided questions: (1) How long did it take you to complete the survey? (2) Were the statements clear and understandable? (3) Were the directions easy to follow? (4) Overall, what did you think of the format of the survey? (5) How interesting to you is the content of this survey? (6) How interesting to you is the content of this survey just based on the cover letter introduction? (7) How likely would you be to respond to this survey if you received it from your educational institution email listserv? (8) Did the content of this survey bring up any emotions for you? If so, how distressing were they (mild, moderate, strong, severe)? Pre-testing respondents were encouraged to be honest in their feedback. Responses to the aforementioned questions were intended to

assist the investigator with recognizing potential reliability, validity, response rate, psychological well-being, and liability issues related to the survey and the general content of the research. The pre-test resulted in a 75% response rate, as nine individuals responded to the investigator with feedback.

As a result of this initial pretest, several adjustments were made to the present study's survey. A closer review of the language used throughout the survey took place to ensure inclusiveness and avoid a possible heterosexual bias. The survey's cover letter was revised to include more interesting and captivating aspects of the research content to tap into potential respondents' identification with the subject matter and hopefully increase interest and response rate. Finally, due to pretest respondents' amount of time spent completing the survey (ranging from 15 to 30 minutes), modifications to the completion and submission process have been considered to decrease survey time completion. As a result, the investigator utilized an Internet based survey program to avoid having respondents have to download the survey, type an "x" in the intended field, and then reattach the survey in an email back to the investigator. This more efficient survey completion and submission process likely decreased the burden of participation for respondents and subsequently resulted in an acceptable overall response rate.

The second effort to pretest the survey consisted of inviting current NOVA students from an introduction to psychology class to complete the survey in its revised online format. Eight students successfully completed the survey and were offered the opportunity to comment on their experience in an open-ended format. No concerns or issues regarding the format or content of the survey emerged. Comments consisted of

personal reflections individuals had regarding their transition to adulthood experiences. As a result, no additional significant modifications to the online survey were made.

Data Analysis

Preliminary data handling. Each respondent submitted the completed survey and electronically signed informed consent via an electronic submission process through Survey Monkey. Each submitted survey was gathered and securely saved online by Survey Monkey with password protection. Each returned survey was assigned a number by which it was identified in the data set as it is exported into SPSS.

Response and Item-Completion Rates. Three hundred two individuals submitted a survey. Forty-eight surveys were omitted, as the reported ages were outside of the designated emerging adulthood age range of 18-29. Therefore the present study's sample is N=254. Several surveys were not completed. The total number of participants included in the data analyses ranged from N = 221 to N = 224.

Sample Description. The sample consisted of 152 female (59.8%) and 69 male (27.2%) participants. Thirty-eight respondents did not indicate gender. Ethnic diversity of the sample can be broken down as follows: 51.2% White, 19.2% Black or African American, 17.2% Hispanic or Latino, 11.3% Asian, 0.5% American Indian or Alaskan, and 0.5% Native Hawaiian or Pacific Islander. Fifty-six respondents did not indicate ethnicity. The sample's age breakdown is as follows: 18 years (19%), 19 years (20%), 20 years (15%), 21 years (13%), 22 years (6%), 23 years (5%), 24 years (2%), 25 years (5%), 26 years (2%), 27 years (5%), 28 years (4%), and 29 years (4%). The mean age was 21.3 years. Moreover, 76.8% of the sample was students of the traditional college age between the ages of 18-22 and 23.2% of the participants were 23-29 years old.

Eighty-five percent of the sample was in the process of seeking a first post-high school degree. The breakdown of student status was 29.6% of the sample was first-year students, 50.2% was second-year students, 14.6% was third-year students, 0.5% was not seeking a degree, and 5.2% was post-graduate students. Approximately thirty-four percent of participants considered themselves working professionals, 41.0% considered themselves employed non-professionals, and 24.8% of the students were unemployed. Fifty-three percent of the sample reported their relationship status as single and 27% reported it as committed.

Data analysis. The present study's investigation utilized a moderated-effects model. It was predicted that the strength of the relationship between identity development and psychological distress will change with the degree to which an individual considers him or herself an emerging adult (perceived emerging adulthood). Analyses to check the reliability of the survey instruments and derived subscales (Cronbach alphas) were conducted and presented in the current chapter. The first step in the data analysis process was to provide a description of the study's sample by presenting descriptive statistics for the data collected (means and standard deviations). Second, regression analyses were conducted using the identity variables to predict psychological distress. Finally, analyses were performed to test whether perceived emerging adulthood moderates the links between identity and psychological distress.

The first research question asked does perceived emerging adulthood moderate the relationship between exploration and commitment and psychological distress in emerging adulthood? The second research question asked does perceived emerging adulthood moderate the link between identity processing style and psychological distress in

emerging adulthood? Eight hypotheses were generated and tested using multiple regression analyses to determine the extent to which identity development predicted psychological distress for emerging adults. The analyses specifically examined whether perceived emerging adulthood moderated the link between identity development and psychological distress. Eight identity development variables were utilized in the present study: commitment making, exploration in breadth, ruminative exploration, identification with commitment, exploration in depth, informational processing style, normative processing style, and diffuse avoidant processing style. Psychological distress consisted of psychological adjustment measures resulting in the following five variables: anxiety and depression (K-10), alcohol use (AUDIT), reckless behavior (RBQ), overall positive adjustment (SOS), and satisfaction with life (SWLS). Eight multiplicative interaction terms were computed between the identity development variables and perceived emerging adulthood. Prior to computing the interaction terms, the identity development and perceived emerging adulthood variables were centered, as recommended by Cohen, Cohen, West, and Aiken (2003). Next, multiple regression analyses were computed using perceived emerging adulthood, each of the eight identity development variables, and their interaction terms as predictors of each of the five psychological adjustment measure outcomes. Simple slopes for identity development for perceived emerging adulthood were computed and the resulting regression lines were plotted for interpretation.

Human Participants and Ethics Precautions

Several possible ethical concerns among potential respondents should be noted. With regard to confidentiality, potential respondents were assured in the informed consent letter that all materials will be stored confidentially as described above. Another

concern may include the perceived emotional risk or threat that respondents might feel as a result of any stress, anxiety, or fear induced by the psychosocial and psychological issues addressed in the survey. Although the likelihood of moderate or even mild distress is quite low, should any respondents have felt emotionally distressed by any personal issues triggered by the content of the survey, resources on self-care and mental health issues as well as referral lists for additional psychological support were included with the research materials (Appendix B). In an effort to avoid any ethical concerns regarding the usage of preexisting survey instruments, copyright infringements have been avoided by the researcher having contacted the authors of each measurement to be included in the present study's survey to obtain permission for the use of their instruments.

CHAPTER 4: RESULTS

The purpose of this study was to investigate the moderating effect of perceived emerging adulthood on the relationship between identity development and psychological distress and well-being. This chapter presents the findings from the analysis of data gathered from online surveys. First, descriptive statistics, including means and standard deviations, are presented for the variables used in the study. Following, are results from regression analyses that addressed each research question and hypothesis.

Descriptive Statistics

Means and standard deviations are provided in Table 1 for the five transition-to-adulthood themes measured in the Inventory of the Dimensions of Emerging Adulthood (IDEA): the age of identity explorations, the age of instability, the self-focused age, the age of feeling in-between, and the age of possibilities. An “other-focused” subscale is also included. The average total IDEA score was 3.15 on a four-point scale. Ninety-six percent of the sample scored above the theoretical mid-point (2.5), indicating that the great majority of respondents identify highly with emerging adulthood themes.

Table 1

Means and Standard Deviations for Transition to Adulthood Themes

	N	M	SD	Range	Skew
Age of Identity Explorations	255	3.34	.53	1.0-4.0	-1.25
Age of Instability	256	2.99	.60	1.0-4.0	-1.28
Self-focused Age	255	3.26	.53	1.0-4.0	-.59
Age of Feeling In-between	255	3.11	.72	1.0-4.0	-.01
Age of Possibilities	257	3.28	.57	1.0-4.0	-1.39
Other-focused	255	2.65	.71	1.0-4.0	-.78
IDEA Total	254	3.15	.41	1.1-4.0	-1.65

Note. Themes are from the Inventory of the Dimensions of Emerging Adulthood (IDEA) measure. Valid N (listwise) = 254. Scored on a four-point scale (1-4).

Table 2 presents the means and standard deviations for the identity development variables. The Dimensions of Identity Development Scale (DIDS) includes five identity dimension subscales: commitment making, identification with commitment, exploration in breadth, exploration in depth, and ruminative exploration. The Identity Style Inventory (ISI) includes three identity processing style subscales: informational, normative, and diffuse-avoidant. The sample means for the identity dimension subscales ranged from 3.10-4.05 on a five-point scale. The sample means for each identity processing style were 3.53 (informational), 3.20 (normative), and 2.53 (diffuse avoidant) on a five-point scale. The mean scores on these identity measures indicate that the sample scored more towards the mid-point of the scales.

Table 2

Means and Standard Deviations for Identity Development Variables

	N	M	SD	Range	Skew
<i>Dimensions of Identity Development</i>					
Commitment Making	243	3.82	.90	1.0-5.0	-.73
Exploration in Breadth	243	4.05	.76	1.4-5.0	-.61
Ruminative Exploration	243	3.10	1.04	1.0-5.0	-.22
Identification with Commitment	242	3.87	.89	1.4-5.0	-.65
Exploration in Depth	241	3.76	.75	1.4-5.0	-.41
<i>Identity Processing Style</i>					
Informational	229	3.53	.52	2.0-5.0	.06
Normative	229	3.20	.61	1.0-5.0	-.06
Diffuse Avoidant	229	2.53	.72	1.0-5.0	.54

Note. Dimensions of Identity variables are from the Dimensions of Identity Development Scale (DIDS). Valid N (listwise) = 241. Identity Style variables are from the Identity Style Inventory (ISI). Valid N (listwise) = 229. Both measures scored on a five-point scale (1-5).

Table 3 displays means and standard deviations for variables representing internalizing and externalizing aspects of psychological distress. Five composite scales are presented representing respectively the Kessler Psychological Distress Scale (K-10) (for anxiety and depression), the Alcohol Use Disorders Identification Test (AUDIT), Reckless Behavior Questionnaire (RBQ), Schwartz Outcome Scale (SOS) (for overall positive adjustment), and the Satisfaction with Life Scale (SWLS). Scores indicated moderate levels of anxiety and depression, low levels of alcohol use and reckless behaviors, and moderate levels of overall adjustment and satisfaction with life.

Table 3

Means and Standard Deviations for Psychological Distress Measures

	N	Mean	SD	Range	Skew
Anxiety and Depression ^a	225	2.38	.83	1.0-5.0	.660
Alcohol Use ^b	225	.43	.48	0.0-2.2	1.422
Reckless Behavior ^b	224	.73	.68	0.0-3.7	1.235
Overall Adjustment ^c	223	4.29	1.25	0.0-6.0	-.847
Satisfaction with Life ^d	222	4.62	1.38	1.0-7.0	-.452

Note. Anxiety and depression variables are from the Kessler Psychological Distress Scale (K-10). Valid N (listwise) = 225. Alcohol use variables are from the Alcohol Use Disorders Identification Test (AUDIT). Valid N (listwise) = 225. Reckless behavior variables are from the Reckless Behavior Questionnaire (RBQ). Valid N (listwise) = 224. Overall adjustment variables are from the Schwartz Outcome Scale (SOS). Valid N (listwise) = 223. Satisfaction with life variables are from the Satisfaction with Life Scale (SWLS). Valid N (listwise) = 222.

^aScored on a five-point scale (1-5). ^bScored on a five-point scale (0-4). ^cScored on a seven-point scale (0-6). ^dScored on a seven-point scale (1-7).

Regression Assumptions

A significance test for a multiple correlation is based on two assumptions for a random-effects model (for non-experimental studies). The first assumption is that the standardized residuals are normally distributed. Upon looking at the distribution of

residuals, this assumption was met in the present study, indicating that the statistical relationships that exist between the variables are linear ones. The second assumption is that the scores on predictor variables are independent of each other. The Variance Inflation Factor (VIF) and tolerance values were used to check for multicollinearity problems among the predictors (Von Eye, A. & Schuster, 1998). No issues of multicollinearity were found.

Regression Analysis

Multiple regression analyses were used to determine the extent to which identity development predicted psychological distress for emerging adults. The analyses specifically examined whether perceived emerging adulthood moderated the link between identity development and psychological distress. Eight identity development variables were utilized in the present study: commitment making, exploration in breadth, ruminative exploration, identification with commitment, exploration in depth, informational processing style, normative processing style, and diffuse avoidant processing style. Psychological distress consisted of psychological adjustment measures resulting in the following five variables: anxiety and depression (K-10), alcohol use (AUDIT), reckless behavior (RBQ), overall positive adjustment (SOS), and satisfaction with life (SWLS). Eight multiplicative interaction terms were computed between the identity development variables and perceived emerging adulthood. Prior to computing the interaction terms, the identity development and perceived emerging adulthood variables were centered, as recommended by Cohen, Cohen, West, and Aiken (2003). Correlation coefficients were computed to assess the relationships among the identity, perceived emerging adult, interaction, and psychological distress variables. Tables presenting these

results are included and significant correlations are noted. Next, multiple regression analyses were computed using perceived emerging adulthood, each of the eight identity development variables, and their interaction terms as predictors of each of the five psychological adjustment measure outcomes. Tables are presented that summarize the results of the analyses. Simple slopes for identity development for perceived emerging adulthood were computed and the resulting regression lines were plotted (see Figures 1-7) for interpretation of significant interaction effects. Specifics of each analysis as it relates to the present study's hypotheses are discussed below.

Research Question 1

What moderating effect does perceived emerging adulthood have on the relationship between exploration and commitment and psychological distress in emerging adulthood?

Hypothesis 1

It was hypothesized that exploration in breadth would be negatively associated with psychological distress and positively associated with psychological well-being for individuals who highly perceive themselves as emerging adults. Multiple regression analyses were conducted to predict the levels of psychological distress from identity development processes and perceived emerging adulthood and the interaction of the two. The predictor variables were exploration in breadth, perceived emerging adulthood, and the interaction between the two. The criterion variables were anxiety and depression, alcohol use, reckless behavior, overall positive adjustment, and satisfaction with life. Exploration in breadth was significantly related to the AUDIT, $F(3,220) = 5.86$, the SOS, $F(3, 218) = 4.98$, and the SWLS $F(3, 217) = 4.11$ (all $p < .05$; see Tables 5-6). While a

simple slope analysis indicated no significance for low or high perceived emerging adulthood ($p < .05$), perceived emerging adulthood showed some moderation effect of exploration in breadth for alcohol use, $B = .14$, $p < .05$. The results of these analyses suggested that individuals who identify less strongly with the characteristics of the emerging adult stage and who engaged in high levels of exploration in breadth behaviors tended to report lower levels of alcohol use. In other words, exploration in breadth was more strongly associated with lower alcohol use behaviors for individuals who identify less with the characteristics of emerging adults, contrary to the prediction of Hypothesis 1.

Table 4

Means and Correlations for Exploration in Breadth, Psychological Distress and Well-being, and Perceived Emerging Adult Variables

	Correlations							
	1	2	3	4	5	6	7	8
1. IDEA	1							
2. Exploration in Breadth	.40**	1						
3. IDEA x Exploration in Breadth	-.19**	-.25**	1					
4. K-10	.15*	-.02	.08	1				
5. AUDIT	-.14*	-.22**	.19**	.14*	1			
6. RBQ	.10	-.01	.09	.07	.52**	1		
7. SOS	.07	.26**	-.06	-.51**	-.20**	-.06	1	
8. SWLS	-.06	.19**	-.03	-.47**	-.18**	-.12	.73**	1
Mean	3.15	4.05	.11	2.38	.43	.73	4.29	4.62
SD	.41	.76	.38	.83	.48	.68	1.25	1.38

* $p < .05$, ** $p < .01$

Note. The IDEA (Inventory of the Dimensions of Emerging Adulthood) measures perceived emerging adulthood. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Table 5

Exploration in Breadth Predicting Psychological Distress

Predictor Variable	K-10			AUDIT			RBQ		
	b	SE	B	b	SE	B	B	SE	B
Identity Dimension									
IDEA	.36	.16	.16	-.05	.09	-.04	.25	.13	.14
Exploration in Breadth	-.07	.08	-.07	-.11	.05	-.18**	-.04	.07	-.04
IDEA x Exploration in Breadth	.19	.15	.089	.17	.08	.14*	.19	.12	.11
R ²	.03			.07			.02		

*p < .05. **p < .01.

Note. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior.

Table 6

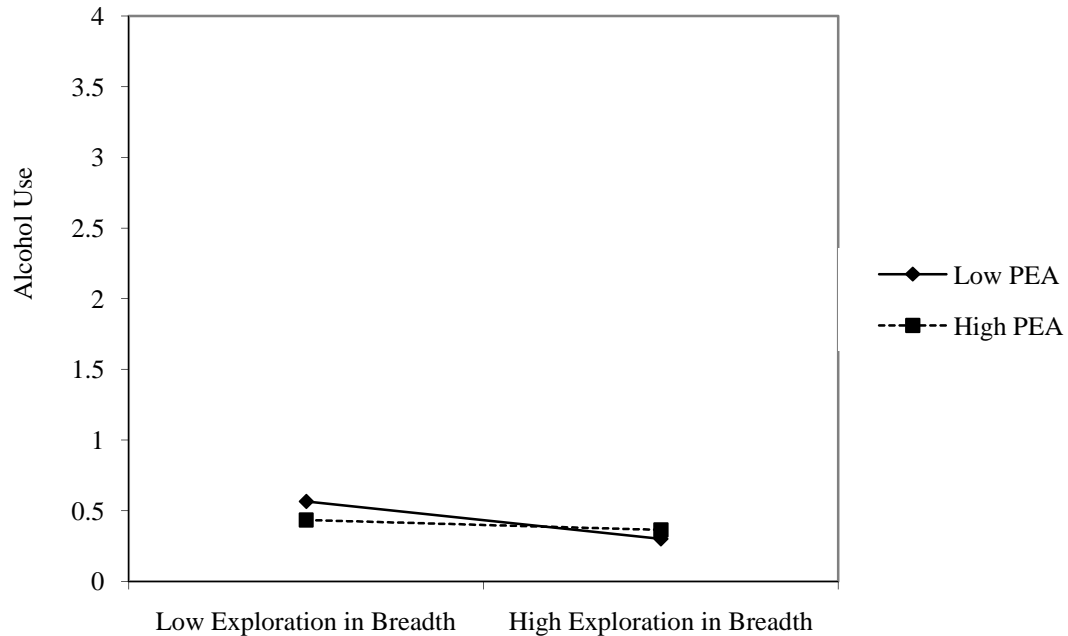
Exploration in Breadth Predicting Well-being

Predictor Variable	SOS			SWLS		
	b	SE	B	b	SE	B
Identity Dimension						
IDEA	-.11	.24	-.03	-.57	.27	-.15
Exploration in Breadth	.43	.12	.27**	.44	.13	.24**
IDEA x Exploration in Breadth	.03	.23	.01	.01	.25	.00
R ²	.06			.05		

*p < .05. **p < .01.

Note. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Figure 1. Alcohol use as a function of perceived emerging adulthood and exploration in breadth.



Hypothesis 2

It was hypothesized that exploration in depth would be negatively associated with psychological distress and positively associated with psychological well-being for individuals who perceive themselves as emerging adults. To test this hypothesis, multiple regression analyses were conducted to predict psychological distress (anxiety and depression, alcohol use, reckless behavior, overall positive adjustment, and satisfaction with life) from exploration in depth, perceived emerging adulthood, and the interaction of the two. Exploration in depth was significantly related to the K10, $F(3, 219) = 5.86, p < .01$, the AUDIT, $F(3, 220) = 3.99, p < .05$, the SOS, $F(3, 218) = 15.97, p < .01$, and the SWLS, $F(3, 217) = 12.50, p < .01$ (see Tables 8-9). There were no significant relationships between exploration in depth and any of the psychological

distress/well-being variables as it interacted with perceived emerging adulthood (see Tables 8-9). These results indicate that perceived emerging adulthood did not moderate the link between exploration in depth and psychological distress and well-being.

Table 7

Means and Correlations for Exploration in Depth, Psychological Distress and Well-being, and Perceived Emerging Adult Variables

	Correlations							
	1	2	3	4	5	6	7	8
1. IDEA	1							
2. Exploration in Depth	.35**	1						
3. IDEA x Exploration in Depth	-.18**	-.15*	1					
4. K-10	.15*	-.18**	.08	1				
5. AUDIT	-.14*	-.19**	.19**	.14*	1			
6. RBQ	.10	.00	.09	.07	.52**	1		
7. SOS	.07	.42**	-.06	-.51**	-.20**	-.06	1	
8. SWLS	-.06	.33**	-.03	-.47**	-.20**	-.12	.73**	1
Mean	3.15	3.76	.11	2.38	.43	.73	4.29	4.62
SD	.41	.75	.38	.83	.48	.68	1.25	1.38

* $p < .05$, ** $p < .01$

Note. The IDEA (Inventory of the Dimensions of Emerging Adulthood) measures perceived emerging adulthood. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Table 8

Exploration in Depth Predicting Psychological Distress

Predictor Variable	K-10			AUDIT			RBQ		
	b	SE	B	b	SE	B	b	SE	B
Identity Dimension									
IDEA	.47	.16	.21	-.10	.09	-.07	.21	.13	.11
Exploration in Depth	-.29	.08	-.26**	-.10	.05	-.15*	-.03	.06	-.03
IDEA x Exploration in Depth	.02	.15	.01	.14	.09	.10	.09	.13	.05
R ²	.07			.05			.01		

*p < .05. **p < .01.

Note. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior.

Table 9

Exploration in Depth Predicting Well-being

Predictor Variable	SOS			SWLS		
	b	SE	B	B	SE	B
Identity Dimension						
IDEA	-.31	.22	-.09	-.75	.25	-.20
Exploration in Depth	.74	.11	.45**	.75	.12	.41**
IDEA x Exploration in Depth	.02	.21	.01	.20	.24	.05
R ²	.18			.15		

*p < .05. **p < .01.

Note. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Hypothesis 3

It was hypothesized that perceived emerging adulthood would not moderate the link between ruminative exploration and psychological distress and well-being. It was expected that ruminative exploration would be positively associated with psychological distress and negatively associated with psychological well-being both for individuals who perceive themselves as emerging adults and those who do not. In these multiple regression analyses, the predictor variables were ruminative exploration, perceived emerging adulthood, and the interaction of the two. The criterion variables were anxiety and depression, alcohol use, reckless behavior, overall positive adjustment, and satisfaction with life. Ruminative exploration was significantly related to the K10, $F(3, 219) = 19.49$, the SOS, $F(3, 218) = 9.15$, and the SWLS, $F(3, 217) = 5.90$ (all $p < .01$; see Tables 16-17). Perceived emerging adulthood moderated the effect of ruminative exploration for reckless behavior, $B = .19, p < .01$ and satisfaction with life, $B = .15, p < .05$ (see Tables 11-12). A simple slope analysis indicated significant effects for both low and high perceived emerging adulthood ($p < .05$), suggesting that ruminative exploration was associated with higher levels of reported reckless behavior for individuals who highly perceive themselves as emerging adults (Figure 2). A simple slope analysis indicated significant effects for low perceived emerging adulthood ($p < .05$), suggesting that ruminative exploration was associated with lower levels of satisfaction with life for individuals with low perceptions of emerging adulthood (Figure 3).

Table 10

Means and Correlations for Ruminative Exploration, Psychological Distress and Well-being, and Perceived Emerging Adult Variables

	Correlations							
	1	2	3	4	5	6	7	8
1. IDEA	1							
2. Ruminative Exploration	.25**	1						
3. IDEA x Ruminative Exploration	.15*	.16*	1					
4. K-10	.15*	.47**	.01	1				
5. AUDIT	-.14*	.07	.06	.14*	1			
6. RBQ	.10	.12	.21**	.07	.52**	1		
7. SOS	.07	-.29**	.02	-.51**	-.20**	-.06	1	
8. SWLS	-.06	-.23**	.12	-.47**	-.20**	-.12	.73**	1
Mean	3.15	3.10	.10	2.38	.43	.73	4.29	4.62
SD	.41	1.04	.36	.83	.48	.68	1.25	1.38

* $p < .05$, ** $p < .01$

Note. The IDEA (Inventory of the Dimensions of Emerging Adulthood) measures perceived emerging adulthood. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Table 11

Ruminative Exploration Predicting Psychological Distress

Predictor Variable	K-10			AUDIT			RBQ		
	b	SE	B	B	SE	B	b	SE	B
Identity Dimension									
IDEA	.03	.14	.01	-.22	.09	-.17	.10	.13	.05
Ruminative	.36	.05	.46**	.05	.03	.10	.05	.04	.08
Exploration									
IDEA x	-.12	.14	-.06	.09	.09	.07	.35	.12	.19**
Ruminative									
Exploration									
R ²		.21			.03			.06	

*p < .05. **p < .01.

Note. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior.

Table 12

Ruminative Exploration Predicting Well-being

Predictor Variable	SOS			SWLS		
	b	SE	B	B	SE	B
Identity Dimension						
IDEA	.49	.22	.15	-.08	.25	-.02
Ruminative	-.40	.08	-.34**	-.32	.09	-.24**
Exploration						
IDEA x	.18	.22	.05	.58	.25	.15*
Ruminative						
Exploration						
R ²		.11			.08	

*p < .05. **p < .01.

Note. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Figure 2. Reckless behavior as a function of perceived emerging adulthood and ruminative exploration.

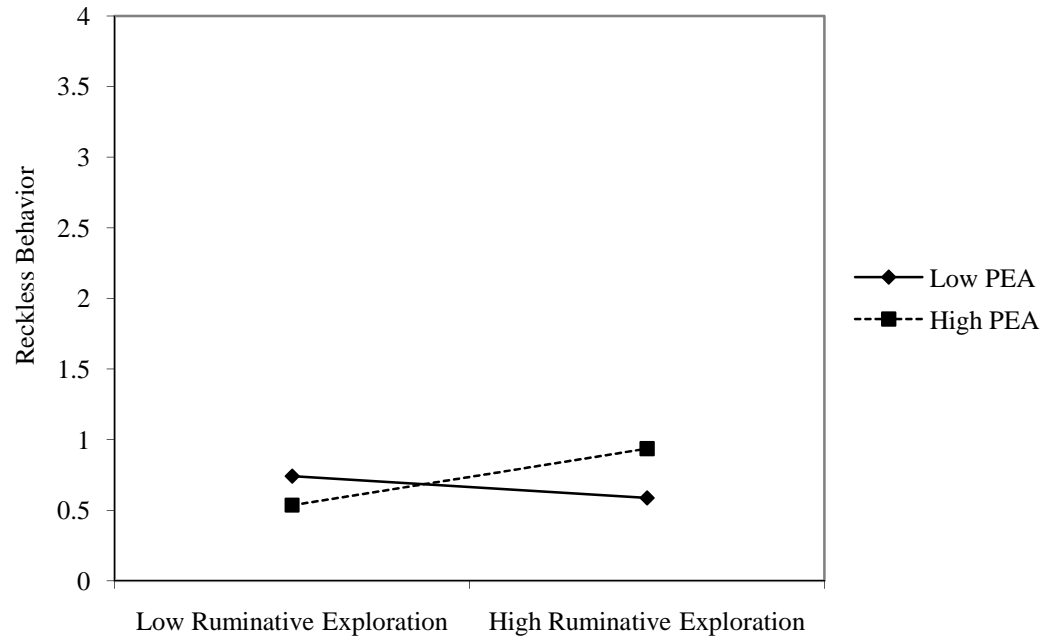
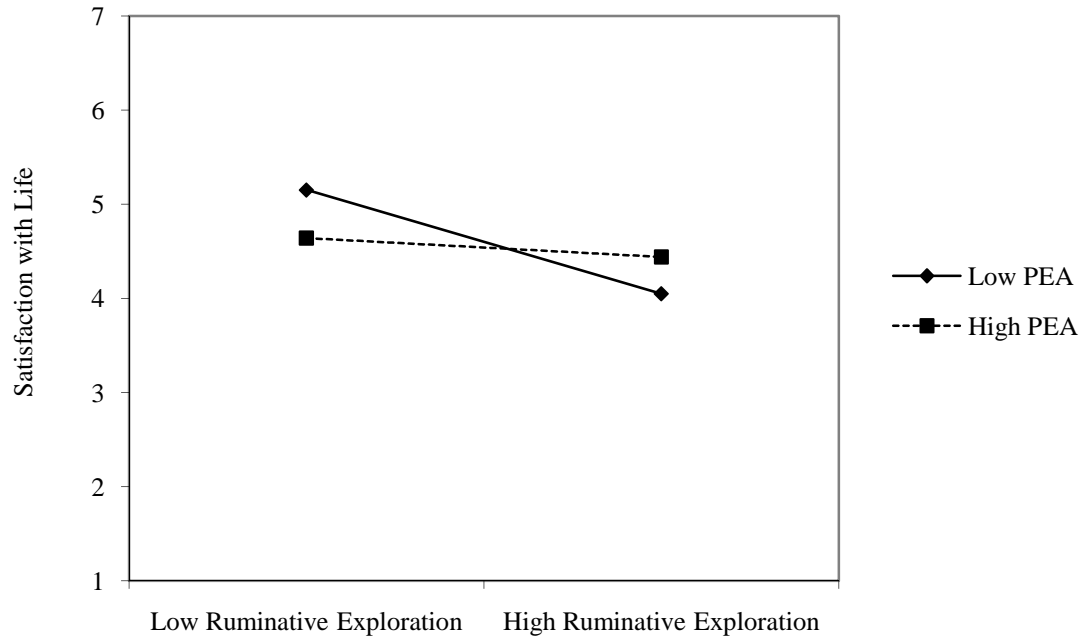


Figure 3. Satisfaction with life as a function of perceived emerging adulthood and ruminative exploration.



Hypothesis 4

It was hypothesized that commitment making would be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults. To test this hypothesis, multiple regression analyses were conducted to predict psychological distress and well-being from commitment making and perceived emerging adulthood. Commitment making was significantly related to all psychological distress and well-being indexes: the K10, $F(3, 220) = 14.33$, the AUDIT, $F(3, 220) = 8.57$, the RBQ, $F(3, 219) = 3.48$, the SOS, $F(3, 218) = 15.92$, and the SWLS, $F(3, 217) = 8.75$ (all $p < .01$; see Tables 14-15). There was no significant interaction between commitment making and perceived emerging adulthood for any of the psychological distress and well-being variables, as

displayed in Tables 14-15. These results indicate that perceived emerging adulthood does not moderate the relationship between commitment making and psychological distress and well-being.

Table 13

Means and Correlations for Commitment Making, Psychological Distress and Well-being, and Perceived Emerging Adult Variables

	Correlations							
	1	2	3	4	5	6	7	8
1. IDEA	1							
2. Commitment Making	.21**	1						
3. IDEA x Commitment Making	-.37**	-.26**	1					
4. K-10	.15*	-.33**	.02	1				
5. AUDIT	-.14*	-.30**	.11	.14*	1			
6. RBQ	.10	-.14*	-.09	.07	.52**	1		
7. SOS	.07	.43**	-.08	-.51**	-.20**	-.06	1	
8. SWLS	-.06	.31**	-.10	-.47**	-.20**	-.12	.73**	1
Mean	3.15	3.82	.07	2.38	.43	.73	4.29	4.62
SD	.41	.90	.53	.83	.48	.68	1.25	1.38

* $p < .05$, ** $p < .01$

Note. The IDEA (Inventory of the Dimensions of Emerging Adulthood) measures perceived emerging adulthood. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Table 14

Commitment Making Predicting Psychological Distress

Predictor Variable	K-10		AUDIT			RBQ			
	B	SE	B	b	SE	B	b	SE	B
Identity Dimension									
IDEA	.49	.14	.24	-.11	.09	-.08	.19	.12	.11
Commitment Making	-.36	.06	-.38**	-.16	.04	-.28**	-.14	.05	-.18**
IDEA x Commitment Making	.02	.10	.01	.06	.08	.05	-.17	.12	-.10
R ²	.16		.11			.05			

*p < .05. **p < .01.

Note. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior.

Table 15

Commitment Making Predicting Well-being

Predictor Variable	SOS			SWLS		
	b	SE	B	B	SE	B
Identity Dimension						
IDEA	.01	.21	.00	-.45	.25	-.12
Commitment Making	.60	.09	.42**	.49	.10	.31**
IDEA x Commitment Making	-.05	.20	-.01	-.23	.23	-.06
R ²	.18			.11		

*p < .05. **p < .01.

Note. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Hypothesis 5

It was hypothesized that identification with commitment would be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults. In these multiple regression analyses, the predictor variables were identification with commitment,

perceived emerging adulthood, and the interaction of the two. The criterion variables were anxiety and depression, alcohol use, reckless behavior, overall positive adjustment, and satisfaction with life. Identification with commitment was significantly related to the K10, $F(3,219) = 18.6$, AUDIT, $F(3, 220) = 6.85$, SOS, $F(3, 218) = 28.93$, and SWLS, $F(3, 217) = 15.07$ (all $p < .01$; see Tables 17-18). Results did not show support for Hypothesis 5 when identification with commitment interacted with perceived emerging adulthood for anxiety and depression. Perceived emerging adulthood did moderate the effect of identification with commitment for anxiety and depression, $B = .16$, $p < .01$ (see Tables 17-18). A simple slope analysis indicated significant effects both for high and low perceived emerging adulthood ($p < .05$), with a stronger effect for low perceived emerging adulthood. These results suggested that identification with commitment was associated with lower levels of anxiety and depression for individuals who perceive themselves as emerging adults at both high and low levels, and the effect was stronger for those with low perceived emerging adulthood (Figure 4).

Table 16

Means and Correlations for Identification with Commitment, Psychological Distress and Well-being, and Perceived Emerging Adult Variables

	Correlations							
	1	2	3	4	5	6	7	8
1. IDEA	1							
2. Identification with Commitment	.24**	1						
3. IDEA x Identification with Commitment	-.11	-.04	1					
4. K-10	.15*	-.36**	.15*	1				
5. AUDIT	-.14*	-.27**	.08	.14*	1			
6. RBQ	.10	-.07	.02	.07	.52**	1		
7. SOS	.07	.53**	-.06	-.51**	-.20**	-.06	1	
8. SWLS	-.06	.39**	-.04	-.47**	-.20**	-.12	.73**	1
Mean	3.15	3.87	.08	2.38	.43	.73	4.29	4.62
SD	.41	.89	.39	.83	.48	.68	1.25	1.38

* $p < .05$, ** $p < .01$

Note. The IDEA (Inventory of the Dimensions of Emerging Adulthood) measures perceived emerging adulthood. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Table 17

Identification with Commitment Predicting Psychological Distress

Predictor Variable	K-10			AUDIT			RBQ		
	b	SE	B	b	SE	B	b	SE	B
Identity Dimension									
IDEA	.53	.14	.24	-.09	.09	-.07	.23	.13	.13
Identification with Commitment	-.38	.06	-.41**	-.14	.04	-.26**	-.08	.05	-.10
IDEA x Identification with Commitment	.33	.13	.16**	.07	.08	.06	.05	.11	.03
R ²		.20			.09			.02	

*p < .05. **p < .01.

Note. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior.

Table 18

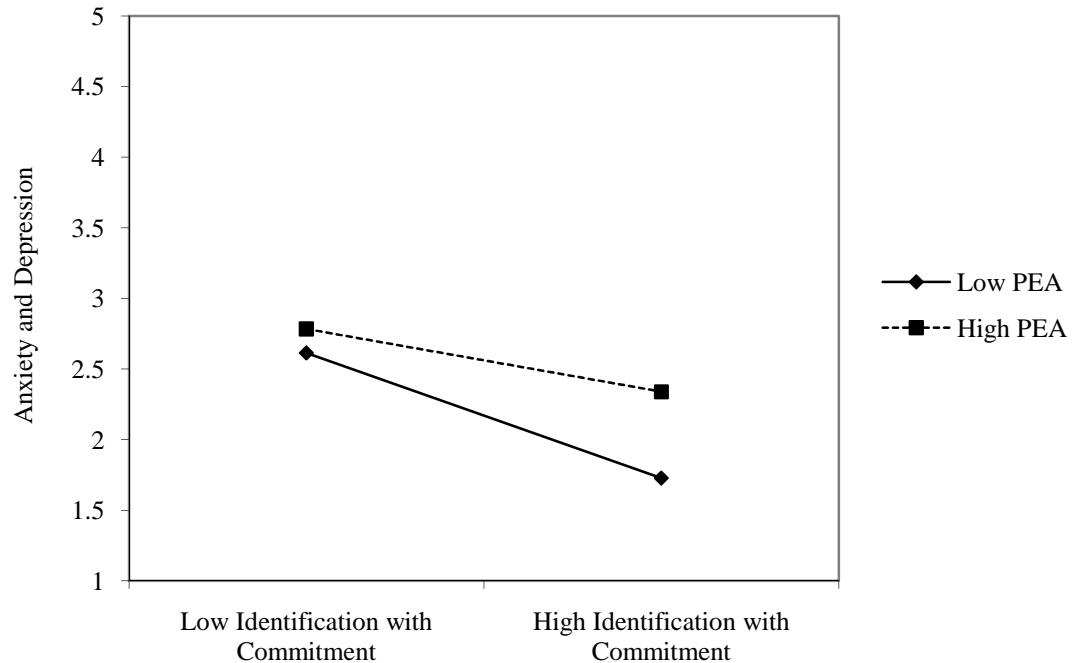
Identification with Commitment Predicting Well-being

Predictor Variable	SOS			SWLS		
	b	SE	B	B	SE	B
Identity Dimension						
IDEA	-.22	.20	-.07	-.61	.24	-.16
Identification with Commitment	.75	.08	.54**	.65	.10	.42**
IDEA x Identification with Commitment	-.13	.18	-.04	-.13	.21	-.04
R ²		.29			.17	

*p < .05. **p < .01.

Note. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Figure 4. Anxiety and depression as a function of perceived emerging adulthood and identification with commitment.



Research Question 2

What moderating effect does perceived emerging adulthood have on the relationship between identity processing style and psychological distress in emerging adulthood?

Hypothesis 6

It was hypothesized that perceived emerging adulthood would not moderate the link between an informational identity processing style and psychological distress and well-being. It was expected that an informational identity processing style would be negatively associated with psychological distress and positively associated with psychological well-being both for individuals who perceive themselves as emerging adults as well as those who do not. In these multiple regression analyses, the predictor

variables were an informational identity processing style, perceived emerging adulthood, and the interaction of the two. The criterion variables were anxiety and depression, alcohol use, reckless behavior, overall positive adjustment, and satisfaction with life. Informational identity processing style was significantly related to reckless behavior, $F(3, 219) = 3.43$, SOS, $F(3, 218) = 2.11$, and SWLS, $F(3, 217) = 1.87$ (all $p < .05$; see Tables 20-21). While a simple slope analysis indicated no significant effects for high or low perceived emerging adulthood ($p < .05$), an informational identity processing style interacted with perceived emerging adulthood for reckless behavior, $B = .16$, $p < .05$ (see Tables 20-21), showing some support for Hypothesis 6. Results suggested that an informational identity processing style may be associated with higher levels of reported reckless behavior for individuals who highly perceive themselves as emerging adults. (Figure 5).

Table 19

Means and Correlations for Informational Identity Processing Style, Psychological Distress and Well-being, and Perceived Emerging Adult Variables

	Correlations							
	1	2	3	4	5	6	7	8
1. IDEA	1							
2. Informational	.33**	1						
3. IDEA x Informational	-.03	-.24**	1					
4. K-10	.15*	.08	.07	1				
5. AUDIT	-.14*	-.18**	.14*	.14*	1			
6. RBQ	.10	.13	.13	.07	.52**	1		
7. SOS	.07	.17*	-.03	-.51**	-.20**	-.06	1	
8. SWLS	-.06	.09	.06	-.47**	-.20**	-.12	.73**	1
Mean	3.15	3.53	.06	2.38	.43	.73	4.29	4.62
SD	.41	.52	.30	.83	.48	.68	1.25	1.38

* $p < .05$, ** $p < .01$

Note. The IDEA (Inventory of the Dimensions of Emerging Adulthood) measures perceived emerging adulthood. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Table 20

Informational Processing Style Predicting Psychological Distress

Predictor Variable	K-10			AUDIT			RBQ		
	b	SE	B	b	SE	B	B	SE	B
Identity Processing Style									
IDEA	.22	.16	.10	-.12	.09	-.09	.10	.13	.05
Informational	.13	.11	.07	-.12	.07	-.13	.19	.09	.15*
IDEA x Informational	.23	.19	.09	.16	.11	.10	.36	.15	.16*
R ²	.02			.05			.05		

*p < .05. **p < .01.

Note. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior.

Table 21

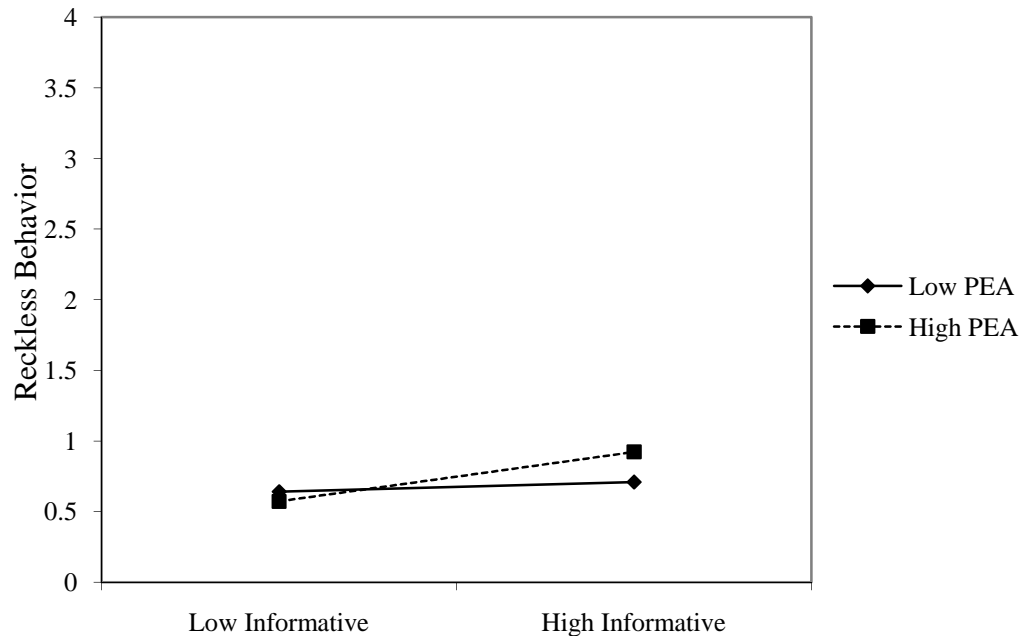
Informational Processing Style Predicting Well-being

Predictor Variable	SOS			SWLS		
	b	SE	B	b	SE	B
Identity Processing Style						
IDEA	.05	.24	.02	-.40	.27	-.11
Informational	.39	.17	.16*	.39	.19	.15*
IDEA x Informational	.03	.28	.01	.42	.31	.09
R ²	.03			.03		

*p < .05. **p < .01.

Note. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Figure 5. Reckless behavior as a function of perceived emerging adulthood and informational identity processing style.



Hypothesis 7

It was hypothesized that perceived emerging adulthood would moderate the link between a normative identity processing style and psychological distress and well-being. It was expected that a normative identity processing style would be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults. In these multiple regression analysis, the predictor variable was a normative identity processing style, perceived emerging adulthood, and the interaction of the two. The criterion variables were anxiety and depression, alcohol use, reckless behavior, overall positive adjustment, and satisfaction with life. Normative identity processing style was significantly related to the AUDIT, $F(3,219) = 3.66, p < .05$, the SOS, $F(3, 218) = 4.13, p < .01$ and the SWLS, $F(3,$

217) = 3.61, $p < .01$ (see Tables 23-24). Results showed partial support for Hypothesis 7 because perceived emerging adulthood did not moderate the effect of a normative identity processing style for anxiety and depression (Figure 6). However, a simple slope analysis indicated a significant effect for low perceived emerging adulthood ($p < .05$), suggesting that a normative identity processing style was associated with lower anxiety and depression for individuals who perceive themselves as emerging adults at a low level. For the majority of the sample, highly perceived emerging adults, a normative identity processing style was not correlated with higher levels of psychological distress. In fact, it was associated with better adjustment and satisfaction with life.

Table 22

Means and Correlations for Normative Identity Processing Style, Psychological Distress and Well-being, and Perceived Emerging Adult Variables

	Correlations							
	1	2	3	4	5	6	7	8
1. IDEA	1							
2. Normative	.05	1						
3. IDEA x Normative	.07	-.03	1					
4. K-10	.15*	-.09	.14*	1				
5. AUDIT	-.14*	-.15*	.08	.14*	1			
6. RBQ	.10	-.08	.09	.07	.52**	1		
7. SOS	.07	.23**	.01	-.51**	-.20**	-.06	1	
8. SWLS	-.06	.21**	-.02	-.47**	-.20**	-.12	.73**	1
Mean	3.15	3.20	.01	2.38	.43	.73	4.29	4.62
SD	.41	.61	.33	.83	.48	.68	1.25	1.38

* $p < .05$, ** $p < .01$

Note. The IDEA (Inventory of the Dimensions of Emerging Adulthood) measures perceived emerging adulthood. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Table 23

Normative Processing Style Predicting Psychological Distress

Predictor Variable	K-10			AUDIT			RBQ		
	b	SE	B	b	SE	B	b	SE	B
Identity Processing Style									
IDEA	.26	.15	.12	-.18	.09	-.14	.18	.12	.10
Normative	-.13	.09	-.09	-.12	.05	-.15*	-.10	.07	-.09
IDEA x Normative	.33	.16	.13*	.12	.10	.08	.16	.14	.08
R ²	.04			.05			.02		

*p < .05. **p < .01.

Note. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior.

Table 24

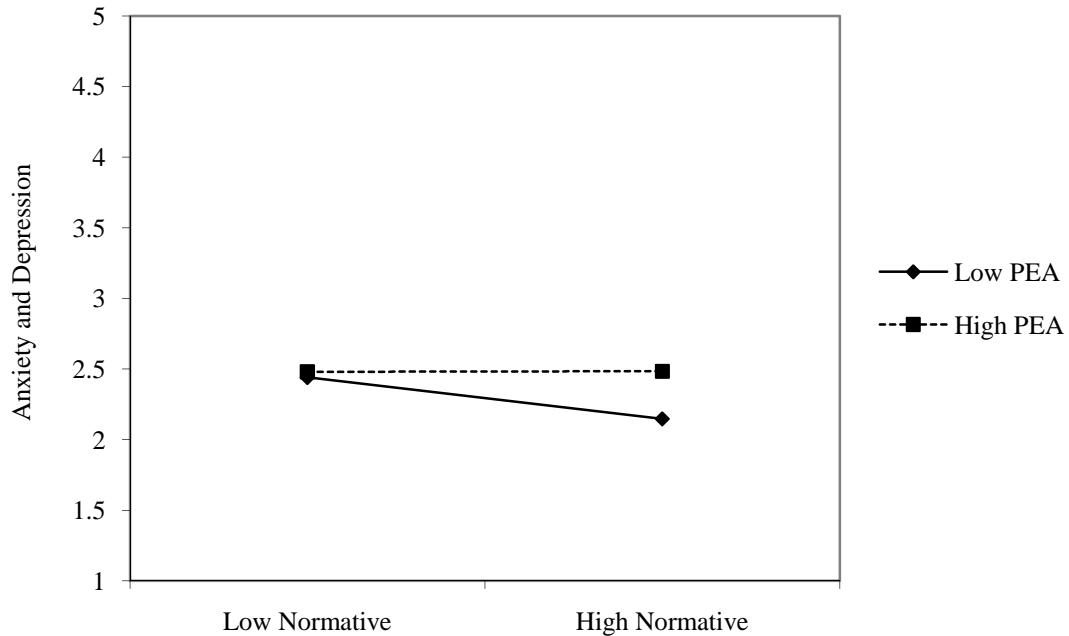
Normative Processing Style Predicting Well-being

Predictor Variable	SOS			SWLS		
	b	SE	B	B	SE	B
Identity Processing Style						
IDEA	.18	.22	.05	-.27	.25	-.07
Normative	.46	.14	.22**	.48	.15	.21**
IDEA x Normative	.06	.25	.02	-.01	.28	-.01
R ²	.05			.05		

*p < .05. **p < .01.

Note. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Figure 6. Anxiety and depression as a function of perceived emerging adulthood and normative identity processing style.



Hypothesis 8

It was hypothesized that perceived emerging adulthood would not moderate the link between a diffuse avoidant identity processing style and psychological distress and well-being. It was expected that a diffuse avoidant identity processing style would be positively associated with psychological distress and negatively associated with psychological well-being both for individuals who perceive themselves as emerging adults and those who do not. In these multiple regression analyses, the predictor variables were a diffuse avoidant identity processing style, perceived emerging adulthood, and the interaction of the two. The criterion variables were anxiety and depression, alcohol use, reckless behavior, overall positive adjustment, and satisfaction with life. A diffuse avoidant identity processing style was significantly related to the K10, $F(3, 219)$

= 7.36, $p < .01$, the RBQ, $F(3,219) = 5.52$, $p < .01$, the SOS, $F(3, 218) = 1.80$, $p < .05$, and the SWLS, $F(3, 217) = 1.68$, $p < .05$ (see Tables 26-27). Results showed partial support for Hypothesis 8 because a diffuse avoidant identity processing style interacted with perceived emerging adulthood for reckless behavior, $B = .14$, $p < .05$ (Table 26). Perceived emerging adulthood did not moderate the effect of a diffuse avoidant identity processing style for reckless behavior. A diffuse avoidant identity processing style was associated with higher levels of reckless behavior both for individuals who perceive themselves as emerging adults at high and low levels. This association was slightly higher for individuals who highly perceive themselves as emerging adults (Figure 7).

Table 25

Means and Correlations for Diffuse Avoidant Identity Processing Style, Psychological Distress and Well-being, and Perceived Emerging Adult Variables

	Correlations							
	1	2	3	4	5	6	7	8
1. IDEA	1							
2. Diffuse Avoidant	-.11	1						
3. IDEA x Diffuse Avoidant	.31**	.04	1					
4. K-10	.15*	.26**	.08	1				
5. AUDIT	-.14*	.10	.04	.14*	1			
6. RBQ	.10	.19**	.17*	.07	.52**	1		
7. SOS	.07	-.15*	-.02	-.51**	-.20**	-.06	1	
8. SWLS	-.06	-.13*	-.01	-.47**	-.20**	-.12	.73**	1
Mean	3.15	2.53	-.03	2.38	.43	.73	4.29	4.62
SD	.41	.72	.39	.83	.48	.68	1.25	1.38

* $p < .05$, ** $p < .01$

Note. The IDEA (Inventory of the Dimensions of Emerging Adulthood) measures perceived emerging adulthood. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Table 26

Diffuse Avoidant Processing Style Predicting Psychological Distress

Predictor Variable	K-10			AUDIT			RBQ		
	b	SE	B	b	SE	B	b	SE	B
Identity Processing Style									
IDEA	.32	.15	.14	-.20	.09	-.15	.15	.13	.08
Diffuse	.32	.07	.28**	.06	.05	.09	.19	.06	.20**
Avoidant									
IDEA x	.06	.14	.03	.10	.09	.08	.23	.12	.14*
Diffuse									
Avoidant									
R ²	.09			.03			.07		

*p < .05. **p < .01.

Note. The K-10 (Kessler Psychological Distress Scale) measures anxiety and depression. The AUDIT (Alcohol Use Disorders Identification Test) measures alcohol use. The RBQ (Reckless Behavior Questionnaire) measures reckless behavior.

Table 27

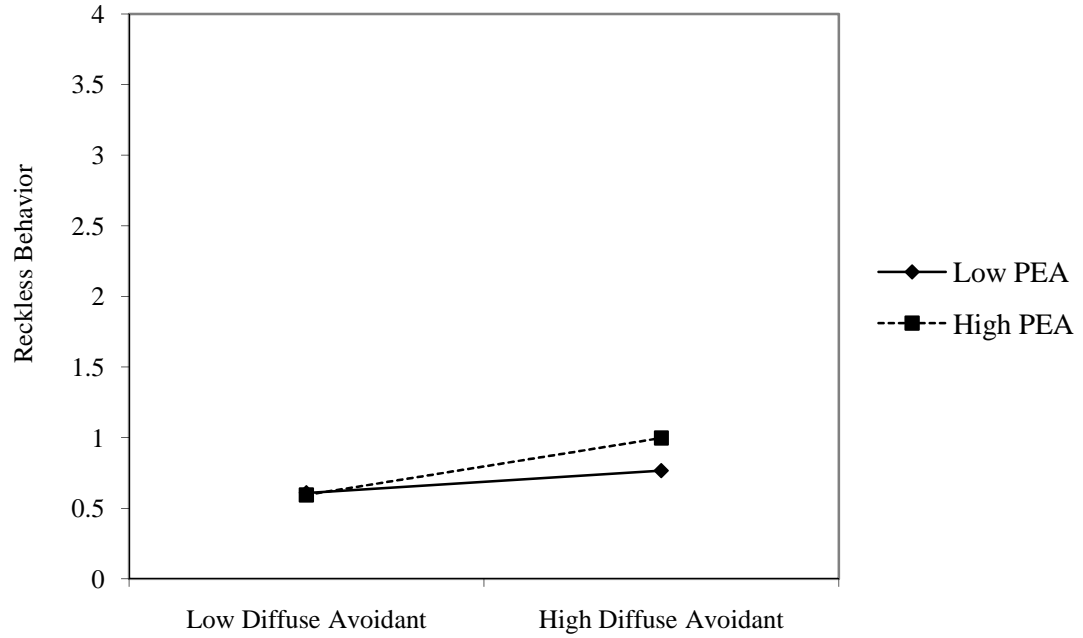
Diffuse Avoidant Processing Style Predicting Well-being

Predictor Variable	SOS			SWLS		
	b	SE	B	b	SE	B
Identity Processing Style						
IDEA	.22	.24	.07	-.31	.27	-.08
Diffuse	-.23	.12	-.13*	-.27	.13	-.14*
Avoidant						
IDEA x	-.11	.22	-.04	.07	.25	.02
Diffuse						
Avoidant						
R ²	.02			.02		

*p < .05. **p < .01.

Note. The SOS (Schwartz Outcome Scale) measures overall adjustment. The SWLS (Satisfaction with Life Scale) measures satisfaction with life.

Figure 7. Reckless behavior as a function of perceived emerging adulthood and diffuse avoidant identity processing style.



CHAPTER 5: DISCUSSION

Emerging adulthood is a time of exploration, instability, self-focus, feeling in-between, and possibility. During this time, one moves from not identifying oneself as an adult to identifying oneself as an adult. As individuals navigate the challenges of this time and approach the tasks of becoming an adult, they can experience a wide range of positive and negative feelings related to distress, adjustment, and well-being. The quest for identity is considered a hallmark of this age period (Arnett, 1998). The process of identity formation can cause confusion, frustration, conflict, or distress, which can manifest in various different ways in each individual, displaying itself in issues such as depression, anxiety, substance abuse, or other psychopathologies. Others may thrive as they experience newfound independence, freedom, and options. In a population with a prevalence of mental health problems, it is important to understand how the struggles involved with the developmental challenges of emerging adulthood may contribute to psychological difficulties for some, and positive adjustment for others. Further, it is important to understand the role that one's perception of him or herself as an emerging adult plays in his or her navigation through the developmental task of identity formation and potential psychological difficulties. The purpose of this study is to explore the transition period of emerging adulthood as it relates to the identity development process and psychological difficulties and well-being during this time. The problem investigated in this study is to investigate the moderating effect of perceived emerging adulthood on the relationship between identity development and psychological distress.

Eight hypotheses were tested in the present study.

1. Exploration in breadth was predicted to be negatively associated with psychological distress and positively associated with psychological well-being for individuals who highly perceive themselves as emerging adults. Exploration in breadth was significantly related to alcohol use, overall adjustment, and satisfaction with life. Perceived emerging adulthood moderated the effect of exploration in breadth for alcohol use. Exploration in breadth was more strongly associated with lower alcohol use behaviors for individuals who identify less with the characteristics of emerging adults, contrary to the prediction of Hypothesis 1. Moreover, highly perceived emerging adults engaged in higher levels of alcohol use.
2. Exploration in depth was predicted to be negatively associated with psychological distress and positively associated with psychological well-being for individuals who perceive themselves as emerging adults. Exploration in depth was significantly related to anxiety and depression, alcohol use, overall positive adjustment, and satisfaction with life. There was no significant relationship between exploration in depth and any of the psychological distress variables as it interacted with perceived emerging adulthood. These results indicate that perceived emerging adulthood does not moderate the link between exploration in depth and psychological distress and well-being.
3. Ruminative exploration was predicted to be positively associated with psychological distress and negatively associated with psychological well-being both for individuals who perceive themselves as emerging adults and those who

do not. Further, it was predicted that perceived emerging adulthood would not moderate the link between ruminative exploration and psychological distress and well-being. Ruminative exploration was significantly related to anxiety and depression, overall positive adjustment, and satisfaction with life. Perceived emerging adulthood moderated the effect of ruminative exploration for reckless behavior and satisfaction with life. Ruminative exploration was associated with higher levels of reported reckless behavior for individuals who highly perceive themselves as emerging adults. Results also indicated that ruminative exploration was associated with lower levels of satisfaction with life for individuals with low perceptions of emerging adulthood.

4. Commitment making was predicted to be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults. Commitment making was significantly related to all psychological distress and well-being indexes—*anxiety and depression*, alcohol use, reckless behavior, overall positive adjustment, and satisfaction with life. Results did not support this hypothesis—there was no significant relationship between commitment making and any of the psychological distress and well-being variables when it interacted with perceived emerging adulthood. These results indicate that perceived emerging adulthood does not moderate the relationship between commitment making and psychological distress and well-being.
5. Identification with commitment was predicted to be positively associated with psychological distress and negatively associated with psychological well-being

for individuals who perceive themselves as emerging adults. Identification with commitment was significantly related to anxiety and depression, alcohol use, overall positive adjustment, and satisfaction with life. Results did not show support for this hypothesis when identification with commitment interacted with perceived emerging adulthood for anxiety and depression. Perceived emerging adulthood did not moderate the effect of identification with commitment for anxiety and depression. These results indicated that identification with commitment was associated with lower levels of anxiety and depression for individuals who perceive themselves as emerging adults at both high and low levels. Further, identification with commitment is correlated with low levels of psychological distress and high levels of positive adjustment and satisfaction with life for individuals in the sample regardless of the extent to which they identify with characteristics of the emerging adult phase. This relationship was slightly stronger for individuals with a lower perception of emerging adulthood.

6. An informational identity processing style was predicted to be negatively associated with psychological distress both for individuals who perceive themselves as emerging adults as well as those who do not. It was also predicted that perceived emerging adulthood would not moderate the link between an informational identity processing style and psychological distress. An informational identity processing style was significantly related to reckless behavior and satisfaction with life. Results showed partial support for Hypothesis 6 because an informational identity processing style interacted with perceived emerging adulthood for reckless behavior. Perceived emerging adulthood

moderated the effect of an informational identity processing style for reckless behavior. Results indicated that an informational identity processing style was associated with higher levels of reported reckless behavior for individuals who highly perceive themselves as emerging adults.

7. A normative identity processing style was predicted to be positively associated with psychological distress and negatively associated with psychological well-being for individuals who perceive themselves as emerging adults. It was also predicted that perceived emerging adulthood would moderate the link between a normative identity processing style and psychological distress and well-being. A normative identity processing style was significantly related to anxiety and depression, overall positive adjustment, and satisfaction with life. Results did not show support for Hypothesis 7 because a normative identity processing style interacted with perceived emerging adulthood for anxiety and depression. Perceived emerging adulthood did not moderate the effect of a normative identity processing style for anxiety and depression. Results indicated that a normative identity processing style was associated with lower anxiety and depression for individuals who perceive themselves as emerging adults at a low level. For highly perceived emerging adults, a normative identity processing style was not correlated with higher levels of psychological distress or well-being.
8. A diffuse-avoidant identity processing style was predicted to be positively associated with psychological distress and negatively associated with psychological well-being both for individuals who perceive themselves as emerging adults and those who do not. It was also predicted that perceived

emerging adulthood would not moderate the link between a diffuse avoidant identity processing style and psychological distress and well-being. A diffuse avoidant identity processing style was significantly related to anxiety and depression, reckless behavior, overall positive adjustment, and satisfaction with life. Results did not show support for Hypothesis 8 because a diffuse avoidant identity processing style interacted with perceived emerging adulthood for reckless behavior. Perceived emerging adulthood did not moderate the effect of a diffuse avoidant identity processing style for reckless behavior. A diffuse avoidant identity processing style was associated with higher levels of reckless behavior both for individuals who perceive themselves as emerging adults at high and low levels. This association was slightly higher for individuals who highly perceive themselves as emerging adults.

Interpretation and Conclusions

The present study's findings indicated that in general, emerging adults are in better psychological health than anticipated. Although some interaction effects suggested that perceived emerging adulthood moderated the relationship between the identity development process and psychological distress and well-being, a great majority of the sample was reportedly that of highly perceived emerging adults who generally have moderate levels of anxiety and depression, low levels of alcohol use and reckless behaviors, and moderate levels of overall positive adjustment and satisfaction with life. While the features of emerging adulthood continue to be both exciting and tumultuous, these findings suggest that emerging adults are potentially accepting the characteristics of

this time of life and in fact, embracing them, rather than feeling overwhelmed and distressed and acting out.

The most significant and surprising outcome of the present study is the reported perceived adulthood status among the participants. Almost the entire sample of respondents indicated that they perceive themselves as emerging adults. By sampling a community college population, it was expected to have a wider range along the emerging adulthood spectrum, than that of traditional four-year college undergraduates. However, despite greater diversity in age and student/professional status, for the most part, the sample still considered itself solidly in the emerging adult phase. This finding is consistent with previous research (Arnett, 2004b; Fadjukoff, Kokko, & Pulkkinen, 2007) in which reaching adulthood has less to do with age or external markers of adulthood and more to do with subjective conceptions of one's own adulthood. These findings differed from those by Shanahan, et al. (2005), who found that individuals who had reached three external markers of family life—leaving the parental household, marriage or cohabitation with a chosen romantic partner, and childbearing and parenting—more likely perceived themselves as adults than those who had not achieved one or more of these transitions. Perhaps, identification with emerging adulthood themes can be considered an assumption now for individuals 18-29 years-old, as opposed to a possibility that individuals may find themselves somewhere along the spectrum of adolescents or adults while in their twenties. Furthermore, the strong emerging adulthood identification of almost the entirety of the sample implies that the significant findings of the current research has less to do with perceived emerging adulthood as a moderator, as anticipated, and more to do with the significant correlations between the identity and psychological distress and well-

being variables. The following section will discuss findings in terms of both the moderator effects as well as the significant associations.

Exploration

Emerging adulthood is considered the age of identity explorations. It is expected that individuals question and experiment with their values, beliefs, interests, skills, expectations, appearance, and place in life by engaging in new activities, roles, and situations that test them. Emerging adulthood is a time of possibilities that allows individuals opportunities that have never before existed to them. This self-focused time allows individuals the ability to be reflective of these new experiences and begin to make sense of them in an effort to better understand themselves and construct a cohesive self.

For the current study's highly perceived emerging adult sample, exploration in breadth was related to positive adjustment and satisfaction with life. Compared to individuals with a lower identification of emerging adulthood, highly perceived emerging adults had higher levels of alcohol use. Exploration in depth was related to low levels of anxiety, depression, and alcohol use and higher levels of positive adjustment and satisfaction with life. For both exploration in breadth and depth, exploring seems to have little significant impact on individuals' psychological health whether they perceive themselves strongly as emerging adults or not, with the exception of alcohol use, in which highly perceived emerging adults engaged in higher levels of alcohol use, inconsistent with what was predicted in Hypothesis 1. There was a significant interaction effect for individuals who perceived themselves as emerging adults at low levels for exploration in breadth and lower alcohol use. However, given the small sample size of individuals indicating low perceptions of emerging adulthood, this finding is difficult to

generalize. These results are inconsistent with some previous research that indicates a positive link between identity development styles and psychological difficulties (Berzonsky, 2003; Campbell, 1990; Campbell et al., 1996; Meeus, et al., 1999; Meeus, et al., 2005), however limited significant relationships to further extend the nature of the psychological distress and the perception of adulthood resulted from the present research. Meeus et al. (2005), in particular, found that adolescents who have stronger commitments are better emotionally adjusted, while adolescents indicating higher levels of exploration have lower levels of emotional adjustment. Several ideas could help explain these findings. It has become a norm of emerging adulthood to explore oneself in terms of values and ideals through various modalities as interests, behaviors, activities, beliefs, etc. As individuals are emerging out of adolescence, social relationships and experiences continue to hold substantial significance to emerging adults. At this phase of life, alcohol use is prevalent and often included in social activities. However, at least in this sample, emerging adults did not report engaging in excessive alcohol use indicating that its use to cope with stressors associated with exploring oneself is not supported. (Arnett, 2005; Kypri, McCarthy, Coe, & Brown, 2004). Additionally, emerging adulthood is a time of exploration and experimentation by nature. Individuals are likely engaging in similar experiences as those of their peers, therefore normalizing their experiences and perhaps even both the positive and negative psychological effects of them. This may result in greater tolerance of the ambiguity of this time, and subsequently lower feelings of distress and greater feelings of adjustment and satisfaction with life.

Ruminative exploration characterizes the chronic, repetitive, and passive pattern of exploration that induces feelings of hopelessness and uncontrollability (Nolen-

Hoeksema, 2000). It is a process by which an individual can feel overwhelmed by possibilities and stuck in a seemingly endless state of exploration (Schwartz et al., 2005). Lycinx et al. (2008) concluded that a ruminative moratorium is a less adaptive identity state and yielded low on well-being. Thus, ruminative exploration was expected to be associated with high levels of psychological distress both for individuals who perceive themselves as emerging adults and those who do not, as rumination is considered to generally be an unhealthy and distressing experience. Hypothesis 3 was partially supported in that ruminative exploration was significantly related to anxiety and depression, overall positive adjustment, and satisfaction with life for the entire sample. Individuals in the sample who reported high levels of ruminative exploration also reported higher levels of anxiety and depression, and lower levels of positive adjustment and satisfaction with life.

Additionally, perceived emerging adulthood did, in fact, moderate the link between ruminative exploration and its relation to reckless behavior and satisfaction with life. Highly perceived emerging adults had higher levels of ruminative exploration and reported higher levels of reckless behavior than their lower perceived emerging adult counterparts. While emerging adults may now recognize that that an explorative period that goes into their twenties is more typical and socially acceptable, for some individuals, the exploration experience can feel confusing, overwhelming, and unremitting. This moratorium is not only prolonged, but the myriad of choices, opportunities, and experiences can seem endless. Despite a greater degree of social acceptance that this period of emerging adulthood has, some individuals may continue to feel pressure from parental or other influential social forces to not just explore but in fact to commit. This

experience can certainly cause stress; one mechanism for coping may be acting out with reckless behavior. Acting out as a form of coping, coupled with the natural tendency to experiment with boundaries and examine limits and rules in the exploration period of emerging adulthood may explain the higher levels of reckless behavior for emerging adults in a ruminative exploration state than those who identify less with being an emerging adult.

Perceived emerging adulthood also moderated the relationship between ruminative exploration and satisfaction with life. Individuals with a low identification of emerging adulthood with high levels of ruminative exploration reported significantly lower satisfaction with life. This finding is consistent with previous research that found a negative correlation between rumination, well-being, and emotional adjustment (Kidwell et al, 1995; Luyckx et al., 2008; Meeus et al., 1999; Schwartz et al., 2005). Interestingly, these results revealed the different ways in which highly versus lowly perceived emerging adults experience ruminative exploration. These findings further validate the role of reckless behavior as it relates to the exploration process in the emerging adulthood phase of life.

Commitment

Emerging adults in the present study who made commitments, and subsequently identified with those commitments, showed lower levels of psychological distress and higher levels of well-being. Commitment making was significantly related to all psychological distress and well-being indexes—individuals reported lower levels of anxiety, depression, alcohol use, and reckless behavior, and higher levels of overall positive adjustment and satisfaction with life. Contrary to Hypothesis 4, no significant

interaction between commitment making and perceived emerging adulthood for any psychological distress or well-being scales was found. However, the current study's highly perceived emerging adult sample gives explanation for the low weight that the moderator effect has on the results. Moreover, as tested in Hypothesis 5, identification with commitment was significantly related to lower levels of anxiety, depression, and alcohol use, and higher levels of overall positive adjustment and satisfaction with life. Further, perceived emerging adulthood moderated the link between identification with commitment and anxiety and depression. Individuals who highly identified with emerging adulthood had slightly lower levels of anxiety and depression when they showed higher levels of identification with commitments.

The present study's results showed inconsistent findings with previous research for associations between exploration and commitment aspects of identity development and psychological distress and well-being. The current study's highly perceived emerging adult sample is consistent with the moratorium identity status, which characterizes exploration and examination of norms, rules, limits, parental and community expectations, beliefs, values, and social roles. Commitments are not considered an expectation of the moratorium status. Despite the normative expectation for this explorative emerging adulthood period, inconsistencies have been found in previous research. In the past, individuals in the moratorium status have reported the highest levels of anxiety, while those in the committed status, particularly foreclosure (similar to the normative identity processing style), report the least amount of anxiety (Waterman, 1992). Further, individuals in the moratorium status felt more depressed than those of other statuses in terms of various ideological areas of identity development

(i.e. religion, occupation, and sexual intercourse) (Johansson, 1983). Emerging adulthood is a time of moratorium, a natural setting for individuals to explore life alternatives. Therefore, it is less likely to find individuals with committed identities. Furthermore, individuals with committed identities are more likely to be those of a foreclosed status (Marcia, 1966) or normative processing style (Berzonsky, 2003), previously found to be associated with great psychological distress, than identity achieved (Marcia, 1966) or an informational processing style (Berzonsky, 2003). Because emerging adulthood is considered a time of exploration, individuals who identify with their commitments may likely do so prematurely, or have not fully gone through a thorough exploration process, indicating a foreclosed identity status (Marcia, 1966) or normative identity processing style (Berzonsky, 2003). This discrepancy can indicate identity confusion and result in increased psychological distress (Meeus et al., 1999, 2005; Berzonsky, 2003; Higgins et al., 1985).

In support of the current study's findings, it is important to keep in mind that while the process of identity development takes place in the "moratorium" of emerging adulthood, it is indeed a process. One does not necessarily move steadily or clearly from a state of identity confusion to identity achieved. Certain aspects of identity are likely to emerge as challenges and develop or resolve at various times and rates than others. As emerging adults are exploring, experimenting, and subsequently committing to various aspects of identity, they likely will experience a decrease in stress and distressing feelings. Identity commitments can enhance well-being and everyday functioning, and provide people with a sense of purpose and direction (Berzonsky, 2003; Erikson, 1950; 1968; Marcia, 1966). Further, identification with commitment consists of the degree to which

individuals feel certain about, can identify with, and internalize their choices. It may be possible that the emerging adults in the current study's sample are, in fact, processing their experiences and more truly identifying with certain aspects of their identity than expected. Perhaps future studies can continue to extend the research originated by Johansson (1983) and examine more specific interpersonal and ideological domains of identity to further iron out the positive or negative psychosocial effects of partial identity commitment during emerging adulthood.

Identity Processing Styles

An informational identity processing style was significantly related to reckless behavior and satisfaction with life. An informational identity processing style was associated with higher levels of reported reckless behavior for individuals who highly perceive themselves as emerging adults, than those who do not. A significant positive relationship between an informational identity processing style and reckless behavior for highly perceived emerging adults was found as a result of testing Hypothesis 6. Even those who are approaching the identity development process in a healthy and most well-adjusted manner are reporting higher levels of reckless behavior. Perhaps their mindfulness to the process is actually creating more stress for them. Acting out in the form of reckless behaviors may be their way of coping or avoiding difficult issues. Studies have shown various links between rebelliousness, risk-taking, reckless behavior, identity, and emerging adulthood (for example, Arnett, 1989, 1991, 1996, 1999, 2005; Bukobza, 2009; Greene et al., 2000; Jonah, 1990; Marcia, 1994b). It is understood that achievement of an integrated identity typically involves a period of moratorium, in which identity issues are explored and negotiated (Marcia, 1994b). This process may involve

critically examining and/or challenging ideologies, conventions, and social roles held by parental figures and their community. This experimenting may naturally encompass aspects of opposition, disobedience, and defiance as individuals experiment with breaking boundaries and negotiating norms and rules. Bukobza (2009) found a significant positive link between identity achievement and past rebelliousness. These findings are consistent with Waterman's (1985) model of identity formation, which asserts that rebellious that characterizes the moratorium period tends to subside with the resolution of the identity crisis. Emerging adulthood, by theory, is considered a prolonged period of moratorium. Therefore, the significant positive association between an informational identity processing style and reckless behavior for highly perceived emerging adults is further validated and supported by previous research as well. Another possible explanation for the positive relationship between an informational identity processing style and reckless behavior may be that emerging adults may consider behaviors such as reckless driving, binge drinking, drug use, and unsafe sex representative of adulthood, a status to which they aspire. Moreover, for some emerging adults, engaging in reckless behavior may be a part of forming a negative or antisocial identity (White et al., 2003).

It is important to note, however, that in the present study's sample, the levels of reckless behavior for highly perceived emerging adults were higher than those of lowly perceived emerging adults, but nonetheless only measured as moderate. In sum, this particular sample of emerging adults was only moderately reckless. In fact, these individuals were in quite a healthier and better adjusted state than expected. The theory of increased reckless behavior in emerging adulthood may still apply, but simply did not

emerge in this sample. Perhaps these individuals are more emotionally tolerant of this state of feeling in-between which is characteristic of the stage than ever before. This time of instability, may not be necessarily a source of stress or evoke of a feeling of pressure as it seemed to have in the past (Arnett, 2000), and as it has been shown in previous research (for example, Berzonsky, 2003; Campbell, 1990; Campbell et al., 1996; Meeus, et al., 1999; Meeus, et al., 2005). Perhaps society's increased acceptability of emerging adulthood and all of its features have trickled down the levels (i.e. parents, bosses) to the emerging adults themselves. This notion of acceptability, coupled with feelings of freedom and possibility of emerging adulthood undoubtedly can contribute to high levels of satisfaction with life.

A normative identity processing style was significantly related to lower levels of alcohol use, and higher levels of overall positive adjustment and satisfaction with life. Contrary to Hypothesis 7, a normative identity processing style was not related to higher levels of anxiety and depression for highly perceived emerging adults. Results indicated that a normative identity processing style was associated with lower anxiety and depression for individuals who perceive themselves as emerging adults at a low level. For the majority of the sample, highly perceived emerging adults, a normative identity processing style was not associated with higher levels of psychological distress.

Individuals with foreclosed identities have been found to utilize a normative processing style in managing identity issues (Berzonsky & Neimeyer, 1994; Streitmatter, 1993). They deal with identity issues in a more passive and automatic manner, internalizing values and beliefs of significant others with little self-evaluation (Berzonsky, 1990). Because identity exploration is the developmentally appropriate task

of this period (Arnett, 2000; Erikson, 1950, 1968), it was expected that emerging adults who have in fact made commitments would have a difficult time because of potential social or emotional conflicts that this might present given the uncharacteristic nature of committing at this stage. However, this was not the case in the outcome of the present study—it seems that a commitment, regardless of exploration preceding it, does not necessarily associate with psychological distress. Alternatively, individuals who reported low levels of emerging adulthood (although only a small amount) and a normative identity processing style reported low levels of anxiety and depression. This finding is sensible because if they are not considering themselves emerging adults, it would not be characteristic of them to be exploring. A commitment could feel appropriate and stress relieving to these individuals. However, when and if they approach this highly explorative emerging adulthood phase, they may potentially feel increased stress due to dissonance between their previously made commitment and perhaps their desire to explore the possibility of different aspects of their identity.

Previous research is mixed in terms of its support of the present study's findings related to a normative identity processing style. Meeus et al. (2005) found that adolescents who have stronger commitments are better emotionally adjusted. They suggested that commitment indicates a greater strength of self-definition and a clearer direction in life, therefore indicating greater happiness and well-being. They relate this notion to research on self-certainty and self-concept in which more clarity in these areas have been associated with lower levels of depression and high levels of self-esteem (Campbell, 1990; Campbell et al., 1996). Normative-oriented individuals also have been shown to be conscientious and agreeable, have a clear sense of direction, and a positive

sense of well-being, but they have limited ability to tolerate ambiguity, a great need for structure, and they are closed to information that may threaten their personal belief and value systems (Berzonsky & Kinney, 1995; Berzonsky & Kuk, 2000). The aforementioned characteristics are not indicative of positive adjustment. However, a perceived sense of certainty and clarity at a time when many feel the opposite may result in lower stress and greater life satisfaction. Individuals with a normative processing style may not feel conflicted by their commitments and therefore experience positive adjustment and satisfaction with life. Furthermore, less stress may contribute to lower levels of alcohol use. Conversely, those with a normative identity processing style have also displayed less adaptive coping mechanisms (i.e. avoidance) (Berzonsky, 1992a; Berzonsky & Adams, 1999; Soenens et al., 2005).

It was expected that individuals who clearly identify with the explorative nature of emerging adulthood, also feeling certain about and/or internalizing their commitments could cause anxiety and depression. With the growing acceptance of extended exploration and prolonged commitment, feeling committed to an identity (or some aspects of identity) could pose a psychological conflict for an emerging adult. Individuals may turn introspective and question the decisions and experiences that have led them to these commitments, while simultaneously perceiving many of their cohorts continue in their negotiation process. This conflictual experience could lead to confusion, anger, and wavering self-esteem, self-efficacy, and self-acceptance, leading to depression or anxiety over these issues.

A diffuse avoidant identity processing style was significantly related to higher levels of anxiety, depression, and reckless behavior, and lower levels of overall positive

adjustment and satisfaction with life. Results did not show full support for Hypothesis 8 because a diffuse avoidant identity processing style interacted with perceived emerging adulthood for reckless behavior. A diffuse avoidant identity processing style was associated with higher levels of reckless behavior both for individuals who perceive themselves as emerging adults at high and low levels. This association was slightly higher for individuals who highly perceive themselves as emerging adults. Although a diffuse avoidant identity processing style has been associated with recklessness and related behaviors in previous studies (Adams et al., 2004; Bukobza, 2008; Grier, 1997; Jones, 1992; Jones & Hartmann, 1988), it is also understood to be characteristic of emerging adulthood (Arnett, 2000; Bukobza, 2008).

The associations between anxiety and depression, positive adjustment, and satisfaction with life are consistent with previous research that links a diffuse avoidant identity processing style to negative adjustment. A diffuse avoidant identity style is characterized by an avoidance of exploration, or an unsystematic exploration process, and unwillingness for active decision-making (Berzonsky & Neimeyer, 1994). A diffuse avoidant identity style has been positively associated with emotionally focused coping strategies, external control expectancies, self-handicapping, maladaptive decisional strategies, cross-situational variability, neuroticism, and depressive reactions, and negatively correlated with self-awareness, cognitive persistence, conscientiousness, and measures of well-being (Berzonsky & Kinney, 1995; Berzonsky & Kuk, 2000). Research indicates positive correlations between a diffuse-avoidant processing style and eating disorders, alcohol and work-related problems, academic and school-related problems, neuroticism and depressive reactions, and early onset of illegal drug and alcohol use

(summarized in Berzonsky, 2003) (although no significant association was found between a normative identity processing style and alcohol use in the present study). Emerging adulthood is a time of possibility, opportunity, freedom, and self focus. In order to most successfully navigate and thrive in the environment presented in emerging adulthood, individuals must exert active exploration, critical examination, and conscientious decision-making. Individuals with a diffuse avoidant processing style possess few or none of these features at this time in their lives. Their avoidance of or chaotic approach to exploration, and unwillingness for decision-making can result in being left behind by their peers who are more actively engaged in their quest for identity. This experience can be isolating and demoralizing, understandably implicating feelings of anxiety and depression, acting out, negative adjustment, and low satisfaction with life.

Limitations

Several limitations of the present study should be noted. The first limitation is regarding the sample. Seventy-three percent of the sample consisted of individuals ages 18-22, the typical age of traditional four year college students; likewise, more than one quarter of the sample consisted of individuals ages 23-29, an age range outside of the traditionally considered college years. Greater diversity in the sample's perception of emerging adulthood was expected, given the diversity of age range. (A community college population typically consists of more non-traditional college students than that of a four year college.) This premise may have held true, in fact, as the original sample was N=302. However, 48 respondents were omitted from the final sample due to either reporting their age as outside of the emerging adult range (18-29 years) or failing to report any age at all. While there were some indications of significant interaction effects,

the analysis was based only on 11 respondents indicating low perceived emerging adulthood, resulting in difficulty suggesting relevant connections between variables. Although there were several significant correlations for individual variables that were in line with the study's hypotheses, as well as with previous research, the outcome resulted in a skewed sample of almost entirely highly perceived emerging adults, creating a limitation in analyzing how the interaction of perceived emerging adulthood applies as a moderator for identity development and psychological distress. A recommendation for future research involves utilizing a broader sample of individuals in the emerging adult age range that goes beyond those recruited from one type of educational institution. One way in which to obtain this sample may be by accessing individuals through various educational and community outlets (i.e. community colleges, four-year colleges and universities, vocational schools, college alumni lists, graduate student lists, veterans' affairs, day cares and preschools, and jails). Recruiting individuals from these diverse outlets would more likely ensure a sample of individuals with greater variance in terms of age, education, work experience, family life and responsibilities, civil service, and legal issues. This sample of 18-29 year-olds would help differentiate how each of these unique experiences helps shape individuals' own perception of adulthood. Another way to investigate the moderating effect of perceived emerging adulthood would be to compare a sample of perceived emerging adults, such as that in the present study, with a sample of individuals who are clearly outside of the typical emerging adult age range (i.e. ages 30-65).

A further issue related to the sample involves its limitation in diversity. While the sample presented with substantial ethnic diversity, there was great homogeneity in terms

of educational attainment. Participants were recruited through Washington, D.C. area community colleges. By approaching current community college students, some diversity of age and educational and employment experiences was represented across the emerging adulthood years. However, this sampling frame was limited to community college educated individuals, omitting the many emerging adults who navigate this transition to adulthood on a different path, which could include individuals with some higher education, four-year college, or graduate degrees, professional school experience, work experience immediately after high school, those who do not complete high school, individuals who engage in military service, individuals raising a family, and those who have been incarcerated at a young age. Future research that includes emerging adults from a wider range of society would broaden the understanding of these processes in more universal developmental terms.

A third limitation involves the design of the present research. The proposed study is cross-sectional in design—data is collected from just one group of individuals at one point in time. This sampling approach is limiting in understanding the transition to adulthood process as individuals move through it. Future research that utilizes a longitudinal approach would offer deeper insight into emerging adults' individual experiences and internal processes at various points in time along the spectrum of the emerging adult years.

A fourth limitation of the present study is the focus on individuals who perceive themselves as emerging adults. Individuals who do not consider themselves emerging adults therefore may feel either closer to adolescence or closer to adulthood. Since the IDEA instrument utilized in the study only measures identification with emerging

adulthood, it is unclear to which end of the spectrum those who do not perceive themselves as emerging adults may fall. Further investigation of the identity development process and psychological distress among individuals in the 18-29 year old age range who do not consider themselves emerging adults is recommended for future research.

Implications and Recommendations

The present study's results have shown to be consistent with previous research that looked at similar variables and also utilized a convenience sample of emerging adults (typically consisting of an undergraduate student population). A recommendation for future research is to gather the same data as that in the present study among various subgroups of emerging adults. In addition to community college students, gathering data for working professionals, four year college students, graduate students, and individuals without a college degree would offer greater diversity among a sample and likely reveal a wider distribution along the perceived emerging adulthood spectrum. In an effort to further investigate the moderating effect of perceived emerging adulthood, it may also be useful to compare results from a sample of emerging adults to that of one of individuals who clearly identify with characteristics of adulthood (i.e. ages 30-65).

As previously discussed, a myriad of studies have investigated adjustment, well-being, and psychopathology among the emerging adult population. Emerging adulthood is a time when serious mental health issues often emerge. College and university counseling centers tend to find themselves overflowing with emerging adult students with issues ranging from moderate to severe mental illness to mild mental health and adjustment concerns. Perhaps it can now be considered an assumption that a

commonality among all of these individuals is that they perceive themselves as emerging adults, and thus are faced with the developmental challenges that this period presents. A recommendation for clinicians is rather than to initially pathologize clinical mental health issues, consider their context within a developmental framework with the tasks and challenges of emerging adulthood as normative and their struggles, in part, developmentally appropriate. While addressing and alleviating more moderate to severe mental health issues is supported, considering the tasks of this period (separation-individuation, identity exploration and commitment, independent decision-making, etc.) within the course of treatment can help emerging adults feel understood, validated, and supported as they navigate this challenging time. An awareness of the link between the stage of emerging adulthood and some problematic behavior (i.e. recklessness and alcohol use) is also important so that clinicians and other helping professionals can understand the type of support and guidance from which emerging adults could benefit in their search for identity.

Because the struggles of emerging adults typically may not be considered pathological in nature, interventions concentrated in psycho education and support is recommended. An approach emphasizing the normative nature of the tasks of this stage may help emerging adults accept and even embrace their challenges. Group interventions in a variety of forms are recommended as possible interventions because of the normalizing effect of being able to identify and connect with others in group work, which reduces feelings of isolation and its potential effects common among this population. Psycho education groups could take an informative approach in terms of simply educating individuals about various challenges of this period, framed in language with

which emerging adults could identify, such as “Managing Life After Moving Out” or “What do I Want to Be When I ‘Grow Up’.” Workshops to disseminate information such as “Coping with Stress” or “Positive Decision Making” could also be useful in an effort to concentrate on issues related to identity development and prevention of problematic psychological distress. Support and process groups can also be a helpful resource for emerging adults; having a place where emerging adults can sort out and reflect on their experiences can help them feel understood, connected, and less alone in this transition stage. Parents of emerging adults could also benefit from similar psycho educational resources, as their understanding of the natural developments of this stage could help strengthen familial relationships during this transition. Finally, it is important to recognize that adolescents, who traditionally struggle with similar issues as emerging adults, will soon be moving into this phase. School counselors have an opportunity to intervene at an early age to help young people set expectations and prepare for the developmental challenges ahead of them.

Throughout emerging adulthood, individuals may be deep in their search for identity, yet have an unawareness of the process through which they are going. As emerging adults are faced with challenges, they may experience increases in psychological distress. For some it may be fleeting; for others it can turn into more severe clinically relevant mental health issues. An awareness and normalization of this developmental process and the issues that it can present can help emerging adults feel less confused, isolated, and overwhelmed as they manage their struggles during this time. Emerging adults can be found everywhere in society. Outreach among a variety of institutions in the community (colleges, counseling centers, schools, community centers,

health clubs, jails, human resource departments, internet based forums) consisting of psycho education and support can open avenues for discussion, understanding, awareness, and resources for, adolescents, emerging adults, and their parents as they manage this significant life transition period.

Appendix A

Cover Letter and Informed Consent

Hello,

You are invited to take part in a research study for a doctoral dissertation. The purpose of this study is to examine aspects of college students' life experiences since completing high school. This research project is conducted under the supervision of Dr. Richard P. Lanthier at The George Washington University.

Participants are asked to complete a survey related to their current life experiences. Completion of the survey should take no longer than 20 minutes. Participation is voluntary and your decision to participate or not will not in any way affect your academic status. You must be at least 18 years old to participate. Participants' responses will remain completely anonymous.

There are no physical risks associated with participating in this study. Completing this survey should expose you to no greater harm than what you encounter in everyday life. Psychological risks include potential discomfort surrounding certain questions, particularly those related to experiences with alcohol or drugs. At the end of the survey you will find a list of community resources and counseling referrals that may be useful to emerging adults such as yourself.

You will not benefit directly from your participation in the study. However the benefits to science and humankind that might result from this study are further understanding of this important period of life to provide improved resources and services for individuals as they navigate the transition into adulthood.

To participate, just click "Next" below. Your willingness to participate in this research study is implied if you proceed with completing the survey. Clicking "Next" will be considered your consent to participate and share information about yourself. Participating in this research is optional. You may refuse to answer any of the questions and if you wish to discontinue at any point while taking the survey, just click "Exit this survey" at the top of the page.

The Office of Human Research of George Washington University, at telephone number (202) 994-2715, can provide further information about your rights as a research participant. Further information regarding this study may be obtained by contacting Janet Miller at jshwartz@gwmail.gwu.edu or Richard Lanthier at lanthier@gwu.edu. Your participation is greatly appreciated.

Sincerely,

Janet L. Miller, M.A., LPC
Doctoral Candidate, Counseling
The George Washington University

Appendix B

Emerging Adulthood Research Study Community Resources

For more information about issues related to emerging adulthood, please see below.

Northern Virginia Community College—Academic Advising & Counseling
<http://www.nvcc.edu/current-students/services-to-students/advising--counseling/index.html>

Howard Community College Counseling, Career Services, and Job Assistance
http://www.howardcc.edu/students/counseling_career_services_and_job_assistance/index.html

Montgomery College Counseling and Advising
<http://www.montgomerycollege.edu/Departments/studev/counselingandadvising.html>

Fairfax County Department of Health
<http://www.fairfaxcounty.gov/hd/>

City of Alexandria Mental Health Services
City of Alexandria Drug and Alcohol Services
<http://alexandriava.gov/mhmrsa/info/default.aspx?id=2474>
(703) 746-3400

City of Alexandria Crisis Information 24-Hour Emergency Services
<http://alexandriava.gov/mhmrsa/info/default.aspx?id=2472>
(703) 746-3401

Arlington, VA Human Services
<http://www.arlingtonva.us/departments/HumanServices/services/bhd/HumanServicesServicesBhdBehavioralHealthcare.aspx>

Montgomery County Department of Health and Human Services
<http://www.montgomerycountymd.gov/hhstmpl.asp?url=/content/hhs/services.asp>

Montgomery County Commission for Women
<http://www.montgomerycountymd.gov/cfwtmpl.asp?url=/content/cfw/index.asp>

Howard County Government Department of Health
http://www.co.ho.md.us/Health/HealthMain/Health_Homepage.htm

Community Counseling Services Center
<http://www.gwu.edu/~chaos/ccsinformation.html>
(202) 994-8645 GWU Foggy Bottom Campus

(703) 299-9148 GWU Alexandria Campus

The Metro DC Gay, Lesbian, Bisexual, and Transgender Community Center
<http://www.thedccenter.org/index.html>

CrisisLink
<http://www.crisislink.org/>
1-800-SUICIDE

Quarterlifecrisis.com
A one-stop info-shop for recent grads & beyond
<http://www.quarterlifecrisis.com/>

Quarterlife Crisis: The Unique Challenges of Life in Your Twenties
By Alexandra Robbins and Abby Wilner

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