



2010

Psychosocial Development, Well-Being, and Internalizing Symptoms During Emerging Adulthood: An Examination of Mediating and Moderating Factors

Jennifer Paley Edidin
Loyola University Chicago

Follow this and additional works at: https://ecommons.luc.edu/luc_diss



Part of the [Clinical Psychology Commons](#)

Recommended Citation

Edidin, Jennifer Paley, "Psychosocial Development, Well-Being, and Internalizing Symptoms During Emerging Adulthood: An Examination of Mediating and Moderating Factors" (2010). *Dissertations*. 228. https://ecommons.luc.edu/luc_diss/228

This Dissertation is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Dissertations by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License](#).
Copyright © 2010 Jennifer Paley Edidin

LOYOLA UNIVERSITY CHICAGO

PSYCHOSOCIAL DEVELOPMENT, WELL-BEING, AND INTERNALIZING
SYMPTOMS DURING EMERGING ADULTHOOD: AN EXAMINATION OF
MEDIATING AND MODERATING FACTORS

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

PROGRAM IN CLINICAL PSYCHOLOGY

BY

JENNIFER PALEY EDIDIN

CHICAGO, IL

AUGUST 2010

Copyright by Jennifer Paley Edidin, 2010
All rights reserved

ACKNOWLEDGEMENTS

I would like to thank Dr. Noni Gaylord-Harden for her unwavering guidance and support from the inception of this project, as well as throughout my graduate career. This paper also benefited from the thoughtful, constructive criticism of Dr. Maryse Richards, Dr. Scott Leon, and Dr. Linda Heath. I also appreciate Dr. Fred Bryant's assistance in choosing measures of well-being. Finally, I would like to thank Jon Goldner for all of his support.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	iii
LIST OF TABLES	vii
LIST OF FIGURES	ix
ABSTRACT	x
CHAPTER I: INTRODUCTION	1
Transitional Periods in Development	3
The Evolution of Emerging Adulthood Theory	5
Shifts in sociocultural factors	6
Gender and sociocultural factors	9
Summary of sociocultural variables	10
Psychosocial Development during Emerging Adulthood	11
Autonomy	12
Separation-individuation	16
Identity development	20
Depression and Anxiety during Emerging Adulthood	24
Depression	25
Anxiety	27
Gender and internalizing symptoms	29
Implications of internalizing symptoms during emerging adulthood	30
Summary of internalizing symptoms	31
Mediating and Moderating Factors of Internalizing Symptoms	31
Feeling “in-between” as a mediator	32
Feeling “off time” as a mediator	34
Physiological arousal as a mediator	35
Perceived stress as a moderator	35
Ability to meet expectations as a moderator	36
Gender as a moderator	37
Summary of mediating and moderating factors	39
The Current Study	40
CHAPTER II: METHODS	50
Participants	50
Procedures	51
Measures	51
Autonomy	51
Separation-individuation	52
Identity formation	53
Feeling “in-between”	54
Feeling “off time”	55
Physiological arousal due to stress	55

Perceived external stress	56
Ability to meet expectations	57
Internalizing symptoms	57
Well-being	58
CHAPTER III: RESULTS	60
Preliminary Analyses	60
Hypothesis 1	60
Autonomy	66
Separation-individuation	66
Identity formation	67
Hypothesis 2	67
Feeling “in-between” as a mediator	68
Feeling “off time” as a mediator	69
Physiological arousal due to stress as a mediator	69
Hypothesis 3	74
Interaction between external stress and autonomy subscales	77
Interaction between external stress and separation-individuation	80
Interaction between external stress and identity development subscales	80
Interaction between meeting residential expectations and autonomy development subscales	84
Interaction between meeting residential expectations and separation-individuation subscales	84
Interaction between meeting residential expectations and identity formation subscales	89
Interaction between meeting time expectations and autonomy development subscales	90
Interaction between meeting time expectations and separation-individuation subscales	90
Interaction between meeting time expectations and identity formation subscales	96
Interaction between meeting financial expectations and autonomy development subscales	96
Interaction between meeting financial expectations and separation-individuation subscales	101
Interaction between meeting financial expectations and identity formation subscales	101
Gender Analyses	102
Hypothesis 4	103
Hypothesis 5	103
Exploratory gender analyses: Gender moderating associations between predictors and outcomes	103
Exploratory gender analyses: Gender moderating associations between predictors and mediators	112
CHAPTER IV: DISCUSSION	116

Psychosocial Predictors of Internalizing Symptoms and Well-Being	117
Autonomy as a predictor of adjustment	118
Separation-individuation as a predictor of adjustment	122
Identity formation as a predictor of adjustment	125
Mediated Relations	127
Physiological arousal due to stress as a mediator	127
Feeling “in-between” and feeling “off time” as mediators	128
Moderated Relations	130
Interaction between autonomy development and external stress	131
Interaction between separation-individuation and external stress	131
Interaction between identity formation and external stress	132
Interaction between psychosocial development and meeting expectations	133
Gender Analyses	134
Hypothesized interactions between separation-individuation and gender	134
Exploratory analyses between psychosocial developmental tasks and gender	136
Interaction between mediators and gender	137
Limitations and Strengths	138
Future Directions	140
Implications	141
 APPENDIX A: RECRUITMENT MATERIAL	 145
 APPENDIX B: CONSENTS, DEBRIEFING, AND COMPENSATION FORMS	 149
 APPENDIX C: INSTRUMENTS	 154
 REFERENCE LIST	 167
 VITA	 179

LIST OF TABLES

Table	Page
1. Means, Standard Deviations, and Paired T Tests for Total Population, Males, and Females.	61
2. Correlations among Variables for Time 1 and Time 2.	63
3. Correlations among Independent Variables for Time 1 and Dependent Variables for Time 2.	65
4. Regression summary table: Interactions between Psychosocial Developmental Tasks T2 and External Stress (PSS) T2 on Internalizing Symptoms T2 and Well-Being T2.	78
5. Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and External Stress (PSS) T2 on Internalizing Symptoms T2 and Well-Being T2.	81
6. Regression summary table: Interactions between Psychosocial Developmental Tasks T2 and Residential Expectations (RE) T2 on Internalizing Symptoms T2 and Well-Being T2.	85
7. Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and Residential Expectations (RE) T2 on Internalizing Symptoms T2 and Well-Being T2.	87
8. Regression summary table: Interactions between Psychosocial Developmental Tasks T2 and Time Expectations (TE) T2 on Internalizing Symptoms T2 and Well-Being T2.	92
9. Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and Time Expectations (TE) T2 on Internalizing Symptoms T2 and Well-Being T2.	94
10. Regression summary table: Interactions between Psychosocial Developmental Tasks T2 and Financial Expectations (FE) T2 on Internalizing Symptoms T2 and Well-Being T2.	97

11. Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and Financial Expectations (FE) T2 on Internalizing Symptoms T2 and Well-Being T2.	99
12. Regression summary table: Interactions between Psychosocial Developmental Tasks T2 and Gender T2 on Internalizing Symptoms T2 and Well-Being T2.	104
13. Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and Gender T2 on Internalizing Symptoms T2 and Well-Being T2.	106
14. Regression summary table: Interactions between Psychosocial Developmental Tasks T2 and Gender on Feeling “In-between” T2 and Feeling “Off Time” T2.	108
15. Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and Gender on Feeling “In-between” T2 and Feeling “Off Time” T2.	110
16. Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and T2 and Gender on Physiological Arousal due to Stress (Stress) T2.	114

LIST OF FIGURES

Figure	Page
1. Hypothesized relations among psychosocial development tasks and internalizing symptoms.	44
2. Hypothesized relations among psychosocial developmental tasks, feeling “in-between,” and internalizing symptoms and well-being.	45
3. Hypothesized relations among psychosocial developmental tasks, feeling “off time,” and internalizing symptoms and well-being.	46
4. Hypothesized relations among psychosocial developmental tasks, stress, and internalizing symptoms and well-being.	47
5. Stress as a mediator of nurturance seeking Time 2 and internalizing symptoms Time 2.	71
6. Stress as a mediator of identity achievement Time 2 and internalizing symptoms Time 2.	72
7. Stress as a mediator of identity achievement Time 2 and well-being Time 2.	73
8. Moderation of identity achievement Time 2 and external stress Time 2 on internalizing symptoms Time 2.	83
9. Moderation of identity achievement Time 2 and residential expectations Time 2 on well-being Time 2	91

ABSTRACT

The current study was the second part of a longitudinal study, which sought to explore psychosocial development in an older population of emerging adults.

Specifically, it examined cross-sectional and longitudinal relations between psychosocial development and internalizing symptoms, as well as between psychosocial development and well-being. Possible mediating and moderating factors were also considered. Two hundred and twelve eligible individuals from one private Midwestern University and one small private college on the East Coast, who completed measures as college seniors, were invited to participate in the second wave of the study, approximately 1½ years after graduation. Participants were asked to complete a series of questionnaires to assess six constructs: autonomy development, separation-individuation, identity formation, feeling “in-between,” feeling “off time,” physiological arousal due to stress, perceived external stress, psychological adjustment, and well-being.

Higher levels of nurturance seeking (Time 2), a subscale of separation-individuation, predicted higher levels of internalizing symptoms (Time 2). Higher levels of identity achievement (Time 2), a subscale of identity formation, were predictive of lower levels of internalizing symptoms (Time 2) and higher levels of well-being (Time 2). Feeling “in-between” and feeling “off time” did not mediate the relations between psychosocial development and the outcome variables; however, stress (Time 2) fully mediated the relation between nurturance seeking (Time 2) and internalizing symptoms

(Time 2). Stress also partially mediated the relations between identity achievement (Time 2) and internalizing symptoms (Time 2), and between identity achievement (Time 2) and well-being (Time 2). Moderation analyses found that at high levels of stress (Time 2), low levels of identity achievement (Time 2) were significantly predictive of high levels of internalizing symptoms (Time 2). Finally, no significant gender interactions were found.

CHAPTER I

INTRODUCTION

The transition to adulthood has long received attention across the social sciences, because it poses significant existential challenges and, consequently, an opportunity for meaningful growth (Schulenberg & Zarrett, 2006). Numerous academics have alluded to a period during which individuals are neither adolescents nor adults; however, since the 1970's, the quality of the transition to adulthood has become increasingly distinct. Although individuals in their late teens and early twenties have traditionally been considered late adolescents or young adults, this time period is theoretically, empirically, and subjectively distinct from preceding and subsequent developmental periods (Arnett, 2000a). Historically, persons in this age group left home, became financially independent, and committed to relationships and careers; however, recent research shows that most persons in this age group have not left home and begun a family of their own, nor have they assumed adult responsibilities or commitments (Arnett, 2000a). These distinctions led to the assertion that this period warranted its own label and was termed "Emerging Adulthood" (Arnett, 2000a).

Until recently, many psychosocial developmental tasks, such as identity formation and separation-individuation, were thought to be negotiated and achieved during adolescence. Successful achievement of these tasks is believed to be critical to adult development and the failure to negotiate them can produce maladjustment (McClanahan

& Holmbeck, 1992). The change in the nature of the transition to adulthood, specifically the time between 18 and 25 years of age, and the high rate of depression and anxiety among individuals in this age group suggest that it may be appropriate to reexamine the relation between psychosocial development and distress during emerging adulthood (Arnett, 2000a; Arnett, Ramos, & Jensen, 2001; Dubas & Petersen, 1996).

In addition to the developmental changes that occur during this time, emerging adults must also confront various other intrapersonal and contextual challenges. Specifically, emerging adults may not perceive themselves as being either adolescents or adults; thus, leaving them to feel “in-between” or “off time,” without a clear understanding of what is normative or expected of them regarding psychosocial development (Arnett, 2000a; Graber & Brooks-Gunn, 1996a). Individuals also develop goals for and expectations of their future, as well as make life-altering decisions during this time (Gottlieb, Still & Newby-Clark, 2007; Mortimer, Zimmer-Gembeck, Holmes, & Shanahan, 2002). As such, the transition to adulthood can be a time of great stress, which overwhelms individuals’ capacity to adapt, and makes them vulnerable to distress and maladjustment; yet, studies to date have not explored the relation between psychosocial development and psychological symptoms in emerging adulthood, nor have they examined the factors that may mediate and moderate this relation (Graber & Brooks-Gunn, 1996b).

The purpose of the current study was to address this gap and examine the relation among these factors. Specifically, the objective was to determine whether psychosocial development during emerging adulthood predicts internalizing symptoms and well-being, and whether feeling “in-between,” feeling “off time,” and level of perceived stress

mediates the relation between these factors. This study also examined whether gender, level of perceived external stress, and failure to meet one's expectations moderates these relations. Additionally, the present study sought to assess the longitudinal effects of psychosocial development on emotional functioning in order to expand the existing knowledge base of developmental psychopathology during the transition to adulthood. The current study built on previous findings by the author, which demonstrated that lower levels of autonomy, as well as higher levels of separation-individuation and moratorium, a component of identity formation, predicted higher levels of internalizing symptoms cross-sectionally (Edidin & Gaylord-Harden, 2009).

Transitional Periods in Development

Life span developmental theories have emphasized the importance of transitions, usually conceptualized as biologically and socially constructed periods of change (Arnett, 1997; Gurevitz Stern, 2004; Schulenberg, Magges, & Hurrelmann, 1997; Schulenberg & Zarrett, 2006). While many of the studies that have examined this period have typically focused on external changes in roles and demographics, other research has highlighted intrapersonal and interpersonal psychological restructuring (Arnett, 1997; Cowan, 1991; Graber & Brooks-Gunn, 1996b). Although such developmental reorganization is normative, emerging adults are faced with a uniquely large number of transitions, which may produce a sense of vulnerability (Gurevitz Stern, 2004; Gottlieb et al., 2007, Graber & Brooks-Gunn, 1996b, Schulenberg & Zarrett, 2006).

Further, societal beliefs about individuals in their early twenties, which are often based solely on age, form a timetable for the attainment of roles and competencies (Schulenberg & Zarrett, 2006). Specifically, individuals in this age group have

traditionally been considered adults and are expected to be autonomous and self-reliant. In recent decades, emerging adults are likely to postpone adult responsibilities until their mid- to late-twenties, inconsistent with society's expectations. Many emerging adults also experience a sudden decline in guidance and support from parents, school, and other important influences in their lives, which can be overwhelming (Schulenberg & Zarrett, 2006). Individuals who internalize traditional expectations may perceive themselves as incompetent if they have not met them (Graber & Brooks-Gunn, 1996b; Mortimer et al., 2002; Schulenberg & Zarrett, 2006). The transition to adulthood, therefore, can be a time of significant stress and anxiety (Graber & Brooks-Gunn, 1996a; Graber & Brooks-Gunn, 1996b). It may be that the perception of feeling "off time," or not meeting developmental expectations, negatively impacts mental health (Graber & Brooks-Gunn, 1996b). Alternatively, transitions may overwhelm coping resources, thus producing significant stress and negatively impacting well-being. Stress during this time is common and typically specific to this period, nevertheless it can have enduring implications on mental health (Graber & Brooks-Gunn, 1996a; Graber & Brooks-Gunn, 1996b; Rice, 1990; Schulenberg & Zarrett, 2006).

Even though the entire transition to adulthood is replete with changes, most research has focused on the early stages of emerging adulthood and the transition to college. There are many changes that occur during the transition from college, but few studies have examined this transition. Specifically, research has not addressed whether psychological development or the normative concerns associated with this period after college increases vulnerability to psychological distress. The current study will address

this limitation in the current literature by examining these associations in a sample of individuals during their first year after college graduation.

The Evolution of Emerging Adulthood Theory

Arnett's (2000a) seminal article on emerging adulthood presents the most complete theoretical framework for studying this period. His theory reflects a "life span developmental systems perspective," as it emphasizes the interaction of intrapersonal and contextual factors within the framework of development (Arnett, 2006; Schulenberg, Maggs, & Hurrelmann, 1997). Arnett (2000a) defines emerging adulthood as a distinct developmental period from 18 until the mid- to late twenties. He proposes that, in industrialized countries, attainment of adult roles is delayed and provides a period for exploration after adolescence (Arnett, 2000a; Goldscheider & Goldscheider, 1994). As such, emerging adulthood is distinguished by change and exploration of potential life directions regarding identity, work, and worldviews.

Emerging adulthood has frequently been considered either late adolescence or early adulthood; however, classifying persons in this age group as either adolescents or young adults may not accurately reflect their developmental stage. Unlike adolescence and adulthood, emerging adulthood is characterized by demographic variability, a lack of responsibility, and exploration of roles, which makes it difficult to anticipate one's demographic standing based on age alone (Arnett, 2000a, 2000b). Although emerging adults have begun to relinquish the dependency of adolescence, these individuals usually do not have the social responsibilities characteristic of adults (Arnett, 2000a). They continue to progress through a process during which they explore life possibilities, make

temporary commitments, and rely on parents for financial and emotional support (Tanner, 2006).

Because of these differences, it would be inappropriate to group together all individuals from the late teens to the early thirties. Using the descriptive term “emerging” for the period from 18-25 years of age communicates the dynamic, fluid, evolving quality of this period (Arnett, 2000a). The integration of various individual, contextual, and cultural factors further communicates the transactional nature of development and, specifically, this period.

Since Arnett proposed emerging adulthood as a new developmental period, other theorists have expanded on and honed his theory (Tanner, 2006). Tanner (2006), for example, suggests that implicit in the life course perspective of emerging adulthood is the process of “recentering”—the “shift in power, agency, responsibility, and dependence” between individuals and their environment, which occurs during emerging adulthood (p. 27). Specifically, there is a transition from a reliance on parents to a greater investment in persons outside the family (Arnett, 2006).

Shifts in sociocultural factors. One factor that provides support for Arnett’s theoretical framework of emerging adulthood is the shift in sociocultural factors in recent decades. Adjustment during adulthood is determined by various factors that are influenced by sociocultural factors. As adolescence and adulthood are socially constructed developmental periods, so too is the transition to adulthood (Arnett, 1997). Traditionally, role transitions, such as leaving home, marriage, and parenthood, marked the shift from adolescence to adulthood and occurred in the late teenage years or early

twenties; however, changes in the timing of these role transitions have affected our ability to accurately determine the end of adolescence and the beginning of adulthood.

Changes in the quality and timing of role markers have been influenced by a variety of cultural shifts in industrialized countries. One of the most prominent differences is the increase in the median age of marriage in Western cultures since the 1960s. In the 1970s, the average age of marriage for women was 21 years old and for men it was 23 years old. Today, the median ages of marriage for women and men are 25 and 27 years old, respectively (Arnett, 2000a; Arnett et al., 2001; U.S. Census Bureau, 2006). The rising age of marriage has, in turn, deferred the age of parenthood. The number of women waiting until their thirties to give birth has increased dramatically in recent decades, which appears to reflect the growing number of women who hold white-collar jobs (Shanahan, 2000). Given that marriage and parenthood are often postponed until the late twenties and early thirties, these tasks may occur too late in life to remain reasonable indicators of adulthood (Arnett, 1997).

Because individuals in the 1960s and 1970s married particularly young, they moved away from their family earlier (Goldscheider & Goldscheider, 1994). Today, many individuals live with their parents for longer periods of time before leaving or they move back home to live with their parents at some time during the transition to adulthood (Graber & Brooks-Gunn, 1996a). For example, according to the most recent 2006 Census, 57% of individuals between the ages of 20 and 24 years live with their families of origin. Not only do emerging adults live at home for a longer period of time, but they also tend to return home more frequently once they have moved out of their parents' residence (Cohen, Kasen, Chen, Hartmark, & Gordon, 2003; Goldscheider &

Goldscheider, 1994). In fact, emerging adults have the highest within-group rate of housing change compared to any other group. As such, many people have periods of considerable independence marked by interludes of dependency (Cohen et al., 2003).

The first generation of individuals returned home after living independently during the 1980's. This appears to have been related to the weak economy, which made it difficult for people to find jobs and support themselves (Cohen et al., 2003; Goldscheider & Goldscheider, 1994). The economy has experienced periods of robust growth since then, but the trend of moving back to one's parent's home has persisted (Goldscheider & Goldscheider, 1994; Sherrod, 1996). Another reason for the shift may be the increase in cohabitation rates in recent decades (Casper, Cohen, & Simmons, 1999). Those who cohabit outside of marriage are more likely to return home after a relationship termination than those who marry and divorce. Due to the demographic variability of emerging adulthood, it is difficult to calculate residential status at any given time and, therefore, residential status has also become an inappropriate marker of adulthood (Arnett, 2000a).

Residential status and financial independence are intertwined, as the timing of one almost invariably affects the other. With emerging adults' gradual acquisition of greater autonomy, a shift between states of varying residential and financial autonomy is common (Arnett, 2000a; Cohen et al., 2003). As people live at home longer and remain reliant on their parents for support, financial independence is delayed (Cohen et al., 2003). Moreover, many individuals who lived away from home continue to depend on their families for monetary support, which may be due to the small or nonexistent income of recent college graduates (Cohen et al., 2003; Goldscheider & Goldscheider, 1994).

Although home-leaving and financial dependence vary depending on individual family and cultural values, more emerging adults remain more functionally dependent on their parents than ever before. Consequently, the development of autonomy occurs gradually over time rather than abruptly with a traditional role transition as in previous generations (Cohen et al., 2003; Goldscheider & Goldscheider, 1994).

As individuals reach traditional adult roles later in life, attainment of these roles is condensed into a shorter period of time (Cohen et al., 2003; Shanahan, 2000).

Simultaneously, the sequencing and timing of achieving adult roles has become increasingly varied and individualized. Moving away from home, marriage, and parenthood at one time occurred at fairly fixed intervals, but this rigid sequence has essentially disappeared (Bynner, Ferri, & Shepherd, 1997; Shanahan, 2000). The late teenage years and early twenties has become a time for continued exploration and experimentation of life options, and long-term decisions are now postponed until the late twenties (Arnett, 2001; Shanahan, 2000). With these shifts, role markers no longer reflect progress towards the attainment of adult roles, but rather are indicative of a shift towards independence. Thus, psychosocial maturity may be a more appropriate marker of adulthood than role transitions (Galambos, Turner, & Tilton-Weaver, 2005; Tanner, 2006). Greater variability in the timing and sequencing of events also appears to be influenced by the reduced importance of permanence, which is evidenced by the diminished stability within families, love, and work (Shanahan, 2000).

Gender and sociocultural factors. With the changing culture in the United States, gender does not have the same impact as it once had on life course, especially during emerging adulthood. Historically, the responsibilities associated with adulthood were

gender specific, with men and women having discrete, but complementary roles. Men were expected to provide for and protect their families, whereas women were expected to manage the household and care for children (Arnett, 2001). Beginning with the Baby-Boom generation, there was a substantial increase in the number of women who lived away from home independently; however, they were not leaving home to get married (Goldscheider & Goldscheider, 1994). Rather, many women pursued educational and career paths that were comparable to men, which enabled them to access many of the same opportunities. With this, women became more career-oriented and began holding more white-collar occupations (Shanahan, 2000). Because many of these jobs penalized individuals for spending time on family responsibilities, women had less time to spend in a mothering role. Less time for mothering responsibilities coupled with marrying and starting a family later resulted in women having fewer children. Furthermore, as women held more high-powered, higher-paying jobs, they contributed financially to the family, forcing men and women to balance work and family. Consequently, men's and women's roles have become increasingly similar over the past few decades (Goldscheider & Goldscheider, 1994), reinforcing the need for additional research on development during emerging adulthood.

Summary of sociocultural factors. Although ample theoretical evidence suggests that emerging adulthood is a unique developmental period, additional empirical research is necessary to augment and validate this new theory. There have also been numerous economic, historical, and cultural changes in recent generations that have changed the complexity and diversity of this period (Cohen et al., 2003). Moreover, the use of traditional role markers (e.g., residential independence) in previous studies to determine

progress towards adulthood has limited ecological validity. Specifically, role markers are often reversible and complex, researchers do not agree on what they are, and they can be defined in numerous ways. Additionally, the traditional markers are inconsistent with how emerging adults see themselves (Arnett, 1997; Cohen et al., 2003; Shanahan, 2000). Unlike the traditional role changes used to mark the transition to adulthood, self-report data indicates that current markers are more complex; they capture important psychosocial qualities of adult status such as autonomy and individuation, rather than sociocultural factors. Societal changes have also affected men's and women's experiences such that they have become progressively more similar. Employing traditional indicators to track the transition to adulthood may, therefore, limit the ability of researchers to capture the true nature of this developmental period (Cohen et al., 2003). In view of that, it may be advantageous to reexamine how psychologists conceptualize psychosocial development during this time.

Psychosocial Development during Emerging Adulthood

Historically, a primary function of adolescence was the negotiation and completion of three fundamental psychosocial developmental tasks—autonomy achievement, separation-individuation, and identity formation—which reflect individual and interpersonal factors (Gottlieb et al., 2007, Tanner, 2006). Adult development is contingent upon completion of these tasks and maladjustment appears to be associated with the inability to achieve them (McClanahan & Holmbeck, 1992). With the recent cultural changes that affect the speed and sequence of developmental markers and changes in self-perceptions of individuals 18 to 25, the completion of these psychosocial

developmental tasks seems to be delayed until the emerging adulthood period (Arnett, 2000a).

Autonomy. Developmental researchers and theorists consider autonomy an essential psychological characteristic of adulthood; however, it has been conceptualized in various ways, which emphasize either emotional or functional independence. The emotional component defines the process through which adolescents gradually gain greater interpersonal distance from their parents and become less dependent on them for approval and emotional support (Fuhrman & Holmbeck, 1995; Hoffman & Weiss, 1987; Kagitcibasi, 1996). The functional, or instrumental, element is characterized by the ability to be financially independent, the ability to manage one's affairs with little help from parents, and the capacity to make independent decisions and take responsibility for them (Arnett, 2000; Gurevitz Stern, 2004; Kagitcibasi, 1996; Moore, 1987). During autonomy development, individuals develop the skills necessary to achieve independence (Arnett, 2000a). Although there is a human need for emotional closeness, some suggest that the concept of autonomy should simply reflect the functional component (Kagitcibasi, 1996). Relative to more traditional cultures, individualism is more valued in American culture; therefore, Americans tend to permit and encourage greater functional autonomy, making the ethic of autonomy particularly strong during emerging adulthood (Arnett, 1998; Arnett, 2000a; Arnett et al., 2001; Kagitcibasi, 1996).

Despite, or perhaps because of, the opportunity for exploration during emerging adulthood, there are significant fluctuations in autonomy during this time (Cohen et al., 2003). Although some individuals feel free to make their own decisions and take responsibility for them while still living at home, for many others, emerging adulthood

may be the first time that they make enduring decisions, which can affect their life course. This can be a source of acute pressure and anxiety (Arnett, 2000a; Graber & Brooks-Gunn, 1996a). Research examining the relation between autonomy and psychological adjustment has been inconsistent and most research has used college freshman as participants. While some studies have not shown a strong connection between functional independence and adjustment (Lapsley & Edgerton, 2002; Moore, 1987), other studies have found significant relations between these variables. Specifically, higher levels of autonomy were generally related to higher levels of adjustment (Anderson & Flemming, 1986; Gutman & Sameroff, 2004; Holmbeck & Wandrei, 1993; Moore, 1987).

One of the components of functional autonomy is home-leaving. While emerging adults are often viewed as *either* residentially dependent *or* independent, given that home-leaving may be a more complex process than previously believed, home-leaving may be better conceptualized as a continuous variable. Whereas many emerging adults continue to live at home into the mid-twenties, others return home after they leave (Cohen et al., 2003; Seiffge-Krenke, 2006). There is also a large number of emerging adults who are better described as semiautonomous. These persons do not live at home, nor do they live independently. Instead they typically live in either college dorms or army barracks. There is an element of ambiguity to this period away from home, because the possibility of returning there exists; therefore, it may not be a permanent break from the family (Goldscheider & Davanzo, 1986).

Gender differences may also influence the process of home-leaving. Several studies have found that women are more likely to leave home at a younger age than men

and remain residentially independent once they do (Cohen et al., 2003; Goldscheider & Goldscheider, 1994; Seiffge-Krenke, 2006; Sherrod, 1996). Although women are more likely to marry earlier than men, sociocultural changes in recent decades suggest that other factors, such as men attaining financial independence later than women, may also play a role (Cohen et al., 2003). Differences in the conceptualization and measurement of home-leaving and in the target population may result in inconsistencies in the relation of autonomy of psychological outcomes.

Living away from one's family can provide the necessary space for emerging adults to complete developmental tasks. Research demonstrates that remaining positively connected to one's family while gradually gaining autonomy most effectively cultivates and enables positive psychological development (Moore, 1987). For successful adjustment, it is necessary to balance the autonomy that comes with living independently and staying emotionally connected to one's family (Dubas & Petersen, 1996). The specific relation between home-leaving and adjustment, though, has been inconsistent (Graber & Brooks-Gunn, 1996a). For example, one study found that individuals who left home in their early twenties were more likely to exhibit psychological symptoms than those who left in their mid-twenties, suggesting that young emerging adults may feel overwhelmed by the new demands of this period (Seiffge-Krenke, 2006). In contrast, another study found that emerging adults who remained at home were more likely to be depressed than those who did not, which may indicate that limited functional autonomy, evidenced by extreme proximity to family, may be detrimental to mental health functioning (Dubas & Petersen, 1996; Graber & Brooks-Gunn, 1996a).

Financial independence and self-governance are two other principal components of autonomy development, which have been associated with adjustment. Financial dependence reflects the substantial variability found in employment during the transition to adulthood (Galambos, Barker, & Krahn, 2006). Employment success can have beneficial effects on well-being, as it provides a sense of competence (Galambos et al., 2006; Masten et al., 2004; Montgomery & Schoon, 1997; Schulenberg, Bryant, & O'Malley, 2004). In contrast, unemployment, which is a strong predictor of depression, is commonly experienced by 18 to 24 year-olds. Many emerging adults also hold their first job for less than a year and change jobs multiple times during the initial years of working (Arnett, 2006; Galambos et al., 2006, Thiessen & Looker, 1999). Emerging adults may also be ambivalent about receiving financial support. Continued dependence on parents can produce anxiety and guilt (Lapsley, Rice, & Shadid, 1989). Parental control and lack of self-governance may also accompany financial support, thus producing feelings of incompetence or anger (Lapsley et al., 1989; Masten et al., 2004). Emerging adults who have completed other psychosocial developmental tasks may be particularly resentful of the restrictions that come with financial assistance from parents (Lapsley et al., 1989). Additionally, the inability to be self-sufficient has been linked to the high rates of depression during the transition to adulthood (Mortimer et al., 2002).

Gender also appears to affect financial independence. Both men and women experience greater financial independence over the course of emerging adulthood, with the greatest gains occurring early during this period. Men acquire more financial independence throughout the period than women. This may be due to the fact that women are more likely to be supported by a romantic partner than men or that they are

more likely to work part-time (Cohen et al., 2003; Sneed et al., 2006). Given the inverse relation between the numbers of hours that one works and depression, it follows that women may be more at risk for experiencing depressive symptoms (Montgomery & Schoon, 1997).

Separation-individuation. Successful completion of separation-individuation is the second crucial task of psychosocial development. As a normal part of early development, children identify with their parents' attitudes and values, but in the late teens and early twenties this changes and individuals begin to divest themselves of their parents' attitudes and beliefs through the process of separation-individuation. The transition leaves room for individuals to create and modify their sense of self (Rice, Cole, Lapsley, 1990). Through the recognition that their parents' attitudes and ideology may not be perfect and the evolution of a new sense of self, emerging adults no longer automatically accept their parents' values as their own and, instead, they begin to develop and accept their own attitudes and beliefs (Rice et al., 1990). This process is, therefore, similar to the process of emotional autonomy during which individuals gradually rely less on parental validation and increasingly embrace their own beliefs. To accomplish separation-individuation, adolescents attempt to update their relationship with their parents by incorporating their new ideas and a new-found sense of self into the present relationship (Quintana & Kerr, 1993). As with many aspects of development, this process does not progress along a linear trajectory (Quintana & Kerr, 1993).

Although initially conceptualized as a process that occurs during infancy, when the infant recognizes that the mother is a separate being, Blos (1967) hypothesized that there was a second separation-individuation during adolescence. Individuals needed to

become emotionally separate from their mothers and develop an integrated sense of self that was discrete and distinctive (Blos, 1979; Levine, Green & Millon, 1986; Rice et al., 1990). During separation, detachment from one's internalized object, typically the mother, facilitates discrimination between self and other. Simultaneously, adolescents develop relationships with persons their own age and their emotional energy is redirected towards them, such that peers become the objects of cathexis. It is during individuation that the individual defines who that differentiated adult self is within a relational context (Blos, 1967; Colarusso, 1990; Gavazzi & Sabatelli, 1990; Kroger, 1985; McClanahan & Holmbeck, 1992; Miller, 1995). Consequently, adolescents become emotionally independent beings and must renegotiate their relationship with their parents (Blos, 1967; Colarusso, 1990; Kroger, 1985).

Since Blos (1967) purposed the concept of a second separation-individuation during adolescence, other academics have expanded and advanced his initial theory. Colarusso (1990) suggested that the separation-individuation process during adolescence is unlike that which occurs during the late teens and early twenties. Specifically, he posited that the focus of the process during adolescence was to make friends so as to enable separation from parents. The adolescent, therefore, had not yet abandoned childhood objects. In contrast, separation-individuation during emerging adulthood was a transitional process during which individuals had already relinquished childhood attachments, but had not established enduring attachments with non-familial objects, which were unique to adulthood (Colarusso, 1990). More recently, Tanner (2006) proposed the theory of "recentering" in which there is a psychological shift from emotional dependence on parents to independence that is comparable to separation-

individuation. Contrary to previous theories, which maintained that separation occurred during adolescence, Tanner contends that while the process begins in adolescence, it continues into and is completed during emerging adulthood (Tanner, 2006).

Given that the goal of separation-individuation is the ability to meet the demands of adulthood, adequate resolution of this task is predictive of adjustment (Holmbeck & Wandrei, 1993; Levine et al., 1986). As with autonomy, if the process of separation-individuation progresses as it should, individuals will see themselves as separate, and their dependency on parents will decrease with the person's well-being intact (Miller, 1995). To prevent either enmeshment or complete disconnection, a balance must be achieved between independence and connectedness (Gavazzi & Sabatelli, 1990; Holmbeck & Wandrei, 1993; Lapsley & Edgerton, 2002). This is also necessary to facilitate commitment to adult roles and responsibilities (Gavazzi & Sabatelli, 1990).

Traditionally, developmental theory assumed that increased psychological individuation was believed to be negatively correlated with depression (Levitz-Jones & Orlofsky, 1985); however, recent theory contradicts this and proposes that successful separation-individuation during adolescence is related to healthy functioning in adulthood, particularly in relation to depression (Lemma, 2004). Positive feelings about separation from one's parents are a strong predictor of adjustment in college (Lapsley & Edgerton, 2002; Quintana and Kerr, 1993). Individuals who are too enmeshed or detached from their parents are likely to experience a conflicted relationship with their parents and be less well-adjusted (Dubas & Petersen, 1996; Eberhart, & Hammen, 2006; Quintana & Kerr, 1993). In other words, when needs of separateness and nurturance are

met, people exhibit fewer depressive and anxious symptoms (Holmbeck & Leake, 1999; Quintana & Kerr, 1993). It may be, then, that internalizing symptoms are a reaction to developmental challenges or that difficulty with this process produces a negative view of oneself (Eberhart, & Hammen, 2006; Quintana & Kerr, 1993).

Although separation-individuation has been proposed as a universal experience, the experience may be different for males and females. Theory indicates that this process is more complex for females than for males, because girls, unlike boys, must simultaneously separate from the object (i.e., their mother) with which they are also supposed to identify in the process of gender identity development (Chodorow, 1978; Gilligan, 1979). It is unclear whether these differences are associated with adjustment. While some studies suggest that there are no gender differences (Fuhrman & Holmbeck, 1995; Kroger, 1985; Lapsley et al., 1989), others have demonstrated that gender moderates the relation between development and maladjustment. For example, excessive connectedness to others, and the resulting absence of differentiation, has been associated with anxiety and self-doubt in females (Ollech & McCarthy, 1997). In contrast, other studies have found that an absence of closeness to parents is predictive of poor outcomes in both males and females (Holmbeck & Wandrei, 1993; Quintana & Kerr, 1993).

There are several explanations that may account for the differential influence of gender on separation-individuation relative to well-being. Historically, the study of human development has been based on males. The current concept of maturity, which is that of an individualized person, is based on males and may not reflect female development (Cooper & Grotevant, 1987; Gilligan, 1982). Due to socialization, personality development may be different for males and females (Gilligan, 1979).

Female development occurs through connections with others, but from a psychoanalytic perspective, this is considered less individuated. Thus, theories of female growth emphasize the tendency towards relationships and interpersonal competence (Gurevitz Stern, 2004; Josselson, 1987). According to these theories, males and females are socialized differently. Mothers see their daughters as uniquely similar to themselves and, therefore, connectedness is emphasized in the mother-daughter relationship. This is distinct from the mother-son relationship in which individuation is encouraged. These relationships subsequently affect ego development (Gilligan, 1979). It may be, then, that different developmental pathways account for the moderating effect of gender on the relation between separation-individuation and mental health (Holmbeck & Wandrei, 1993; Lapsley et al., 1989).

Identity development. Identity development is the third fundamental task of emerging adulthood and refers to the progressive growth of identity (i.e. personal values, beliefs, and goals) from adolescence to adulthood (Waterman, 1982). During the transition to adulthood, individuals try out different life possibilities and progressively make lasting decisions about their lives (Arnett, 2000). Erikson (1959) describes development across the lifespan using stage theory, which incorporates both intrapsychic and psychosocial growth (Erikson 1959, 1963; Gurevitz Stern, 2004). According to him, the fifth stage of identity begins during puberty. It develops out of ego development and focuses on successful identity development. By engaging in exploration and commitment of life alternatives, identity achievement is accomplished (Erikson, 1959, 1994; Gurevitz Stern, 2004; Papini, Micka, & Barnett, 1989). Although originally based on Erikson's

theory of psychosocial development, the current prevailing paradigm is derived from Marcia's work (Valde, 1996).

Marcia (1976) believes that stage theories of development do not accurately describe identity development. He contends that development does not follow a linear trajectory. Rather, he proposes that there are status changes within development during which people progress and regress (Valde, 1996). Consequently, Marcia (1966, 1967) developed an interview that categorized people into four identity statuses: achieved, moratorium, diffused, and foreclosed (Gurevitz Stern, 2004). These vary in terms of the degree of exploration and commitment (Gurevitz Stern, 2004; Waterman, 1982). Exploration refers to experimentation and examination of possible roles and values. Commitment occurs when long-term decisions regarding these roles and values are made (Valde, 1996).

Identity achievement and moratorium are classified as high statuses, because they are associated with healthy development (Kroger, 1985). For identity achievement to occur, two criteria must be met—exploration and commitment. As individuals are exposed to a growing number of life alternatives, they are increasingly likely to experience a crisis. Only after a person has undergone an identity crisis and has made enduring decisions regarding his or her role and values can identity achievement occur (Marcia, 1966; Valde, 1996; Waterman, 1982). It is expected that identity-achieved individuals are more individuated than their counterparts who have not experienced any self-exploration. These persons are more likely to experience healthy separation from parents and, consequently, to maintain close interpersonal relationships (Papini et al., 1989). Moratorium, on the other hand, describes a person who is presently going

through an identity crisis and is in the process of making commitments (Valde, 1996; Waterman, 1982). Individuals who have neither made commitments, nor prepared to make any, are in a period of identity diffusion (Valde, 1996; Waterman, 1982). They tend to be less organized and less open (Papini et al., 1989). Foreclosure is the status in which persons have made commitments without experimenting or examining alternative roles and values (Valde, 1996; Waterman, 1982). Foreclosed individuals show significantly lower levels of healthy separation and higher levels of dependency denial than identity achieved individuals. They are also more likely to seek nurturance from their interpersonal relationships (Papini et al., 1989).

Historically, theories of identity development posited that identity achievement occurred during adolescence. More recently, Arnett (2004) argued that although identity development begins in adolescence, in industrialized societies, it continues into emerging adulthood (Arnett, 2000a). He maintains that exploration during emerging adulthood is more determined and focused than in adolescence (Arnett, 2000; Gurevitz Stern, 2004). As a result, consolidation of identity actually occurs during this time, which is evidenced by the fact that life-long commitments are often made during emerging adulthood (Tanner, 2006). Thus, identity development is progressive and consolidates throughout adolescence and emerging adulthood (Waterman, 1982; Whitbourne & Tesch, 1985).

Whereas some research has focused on the process of identity development, others have focused on the relation between identity status and mental health. Similar to other areas of psychosocial development, the relation between identity development and adjustment remains ambiguous. Although some studies have not found a direct relationship between identity status and adjustment, specifically depression and anxiety

(Wautier & Blume, 2004), others have provided support for a significant relation between these variables (Anderson & Fleming, 1986; Tognoli, 2003). It appears that individuals who have less well-developed identities tend to be less well-adjusted and experience more depression than those with more achieved identities (Rasmussen, 1964; Nelson & Barry, 2005). It may be that individuals with adequate ego development are more comfortable moving towards independence and better able to cope with their environments. In other words, adequate ego development during emerging adulthood is indicative of successful completion of the transition to adulthood (Arnett, 2006; Rasmussen, 1964; Tanner, 2006).

The effect of gender on identity development has also been an area of great interest. Most research suggests that gender differences in identity development do not exist. Because identity development is culturally influenced, the absence of gender differences in recent studies may reflect cultural changes and increasingly similar developmental trajectories (Adams, Shea, & Fitch, 1979; Kroger, 1985; Waterman, 1982; Whitbourne & Tesch, 1985). Other studies have found gender differences in identity development, but there has not been a clear pattern (Luyckx, Goossens, Soenens, & Beyers, 2006; Montgomery, 2005; Waterman, 1982). Some theorists contend that differences result from unique developmental patterns in males and females. One hypothesis is that, unlike male identity, which is developed relative to the outside world, female identity formation is a more complex process that is developed in the context of intimacy (Cooper & Grotevant, 1987; Gilligan, 1979; Ollech & McCarthy, 1997).

Ultimately, most studies have examined identity development during adolescence and college (Arnett, 2006). If identity development continues throughout emerging

adulthood, a better understanding of development after college is needed (Arnett, 2006; Gottlieb et al., 2007). With the exception of a handful of studies, most of the work in the area of identity status and adjustment were done over 20 years ago when the developmental trajectory was different and when it was common to establish functional independence in the early twenties. Research to date has yet to determine whether the extension of the transition to adulthood affects identity development (Sherrod, 1996). If identity formation, in addition to autonomy development and separation-individuation, is, in fact, culturally influenced and if emerging adulthood is a relatively new culturally sanctioned time for exploration and questioning, then the timing of these tasks may be different now than they were several decades ago. If this is the case, it may be appropriate to reconsider the effects of these processes during emerging adulthood and their impact on psychological functioning (Arnett, 2006).

Depression and Anxiety in Emerging Adulthood

Despite an overall increase in well-being during emerging adulthood, many individuals find the transition to adulthood challenging (Reinherz, Giacona, Hauf, Wasserman, & Silverman, 1999; Reinherz, Paradis, Giaconia, Stashwick, & Fitzmaurice, 2003; Schulenberg & Zarrett, 2006). While most individuals adapt to the new situations that they encounter such that the associated psychological distress is transitory, many individuals experience more severe psychopathology (Graber & Brooks-Gunn, 1996a; Schulenberg & Zarrett, 2006). Depression and anxiety are the two most common complaints during the emerging adulthood period (Quintana & Kerr, 1993).

In addition to the factors that are theoretically and uniquely predictive of internalizing symptoms during emerging adulthood relative to adolescence and

adulthood, the symptoms and effects of internalizing disorders may also differ from preceding and subsequent periods (Gutman & Sameroff, 2004; Schulenberg & Zarrett, 2006). For example, research suggests that, compared to adolescents, emerging adults are more likely than adolescents to suffer from insomnia, loneliness, and weight loss, without vegetative symptoms; however, they are less likely to be suicidal (Lewinsohn, Petit, Joiner, & Seeley, 2003; Walters, 1989). Additionally, studies of college students have found that while sadness tends to be their primary symptom of depression, fear, anger, and guilt are associated with severity of symptoms (Seidlitz, Fujita, & Duberstein, 2000). Similarly, theories of depression based on adults are not necessarily applicable to emerging adults (Berry, 2004). If emerging adulthood is indeed a distinctive developmental stage, then it is possible that depression manifests itself differently during that time even if the core symptoms are analogous (Berry, 2004).

Depression. Seventy-eight percent of college students exhibit depressive symptoms (Walters, 1989). A 2003 survey of college students done by the American College Health Association revealed that 10% of participants reported being diagnosed with depression, and almost 40% report having been depressed to the point that it interfered with their ability to study (Berry, 2004). Other studies indicate that the 1-month prevalence rate for depression is higher for persons between the ages of 15 and 24 years compared to any other age group and suicide is the second leading cause of death among college students (Berry, 2004). Despite a decline towards the end of adolescence, severity also appears to increase during emerging adulthood (Nelson & Barry, 2005; Schulenberg & Zarrett, 2006). One study found that relative to a clinical sample, the mean depression score of college students, which fell at the 76th percentile, was

significantly higher than the clinical comparison group, which fell at the 62nd percentile (Quintana & Kerr, 1993).

Although depression has been the most universal mental health problem among emerging adults for several decades, the factors that contribute to depressive symptoms during the transition to adulthood have received little attention (Walters, 1989). Most research has focused on depression as an illness or personality characteristic and relatively few studies have acknowledged the role of developmental processes on depression (Walters, 1989). Given that there are numerous life transitions and changes during this time, which increase vulnerability to depression during adolescence, further examination of the relation among these factors is warranted.

Developmental transitions are often associated with changes in the environment, which require restructuring and challenge growth. The ability to adapt to these changes is predictive of mental health outcomes (Graber & Brooks-Gunn, 1996a; Schulenberg & Zarrett, 2006). Like adolescents, emerging adults may have difficulty coping with numerous novel challenges experienced during this time (Shanahan & Bauer, 2004). Although these new demands are normative for this developmental period, individuals may have difficulty coping with them. Consequently, this increases vulnerability to psychopathology during the transition to adulthood (Seiffge-Krenke, 2006). It is, therefore, believed that depression is a reaction to development during the transition to adulthood (Lewinsohn et al., 2003; Walters, 1989). As emerging adults leave home for the first time, they separate from childhood objects (e.g., mother), but have not yet established new relationships with more enduring objects (e.g., husband or wife) (Colarusso, 1990; Nelson & Barry, 2005). This time may be characterized by loneliness

and, therefore internalizing symptoms. Simultaneously, individuals may experience other forms of separation, such as romantic breakups (Nelson & Barry, 2005).

While depression can be a reaction to normative developmental changes, it can also be precipitated by events that would be universally perceived as stressful (Lewinsohn et al., 2003). Due to the multiple transitions that occur during emerging adulthood, the likelihood of experiencing stressful events increases. It follows, then, that the more stressful life events that are experienced by emerging adults, the more at risk they are to experience negative moods (Arnett, 1999; Graber & Brooks-Gunn, 1996b; Rice, Harold, & Thapar, 2003; Walters, 1989). Although the experience of multiple life transitions plays a key role in adolescent mood, it may not be the experience itself, but the individual's perception of the experience, which contributes to disorders of mood (Arnett, 1999). In American culture, individuals tend to measure their self-worth against external standards of success (Walters, 1989). When expectations about development are not met or individuals do not mature into what they perceive as a successful role, they may experience a sense of inadequacy or perceive themselves as failures (Berry, 2004). It is also possible that normative concerns about the world and one's future lead to distorted cognitions about these matters, which then produce feelings of ineffectiveness and sadness (Berman, Weems, & Stickle, 2006; Mortimer & Staff, 2004).

Anxiety. Anxiety, which is characterized by extreme nervousness and concern, is another symptom frequently experienced by emerging adults (APA, 2000). Prevalence rates across studies are somewhat variable. Whereas one study of adolescents and emerging adults found a 9.3% prevalence rate (Costello, Egger, & Angold, 2005), another study of college students demonstrated that every student who sought counseling

at the college showed signs of anxiety (Amada & Grayson, 1988). When compared with persons in a clinical sample, labeled as “neurotic,” emerging adults also experience more severe symptoms. While the scores of the “neurotic” sample fell at the 60th percentile, those of the college student sample fell at the 85th percentile (Quintana & Kerr, 1993).

Various theories have been proposed to explain the high levels of anxiety during emerging adulthood. Psychoanalytic theory proposes that fear of object loss and helplessness, as well as new expectations and demands on the superego, increase vulnerability to anxiety (Amada & Grayson, 1989). Individuals, who are in the midst of a transition, may experience high levels of existential anxiety, which dissipates after the transition is complete. For example, one study of college students found that they experience significant levels of anxiety about what they would do after graduation (Amada & Grayson, 1989). Given the large number of emerging adults who incur these symptoms, it may be that existential anxiety is normative during this time period.

The emphasis on competition and achievement in American society may further amplify concerns about success and, therefore, precipitate anxiety (Amada & Grayson, 1989). A study of identity development during emerging adulthood found that individuals in a state of moratorium were more likely to experience anxiety than those of other identity statuses. As these persons explore their beliefs, values, and worldviews, they may feel in limbo. They may harbor concerns about the possibility of finding meaning in life, the recognition that they are “ultimately alone,” and the unknown (Amada & Grayson, 1989, p. 151; Berman et al., 2004). Although not knowing can itself

produce apprehension, maladaptive beliefs about these issues may also play a role.

These concerns appear to predict both existential anxiety and depression (Berman et al., 2004).

Gender and internalizing symptoms. The role of gender in relation to psychopathology among emerging adults remains unclear. Studies of emerging adults have consistently found that, while small, the prevalence of anxiety is greater in females than males (Costello et al., 2005; Quintana & Kerr, 1993). This differs from the inconsistent results in depression research. Although many studies have not found a relation between gender and depression (e.g. Lapsley et al., 1989; Lewinsohn et al., 2003; Reinherz et al., 2003; Reinherz et al., 1999), others indicate that a gender difference in depression exists, which begins in adolescence and continues through adulthood. Specifically, women are more than twice as likely as men to experience depression and endure recurring episodes (Berry, 2004; Lewinsohn et al., 2003; Quintana & Kerr, 1993). More severe episodes are also apparent in women (Galambos et al., 2006; Reinherz et al., 1999). As 80% of women experience their first episodes of depression after a major life event, gender differences seem to reflect women's reactivity to stressful life events (Ge, Lorenz, Conger, & Elder, 1994; Nesse, 2000).

In contrast to the increase in depression among girls during adolescence, gender differences in depression may diminish, or even reverse, during the transition to adulthood (Galambos et al., 2006; Lewinsohn et al., 2003; Reinherz et al., 1999; Mirowsky, 1996). This shift in the gender rates of depression may be indicative of gender similarities in psychosocial development during emerging adulthood. Studies show a significant positive correlation between psychosocial development and

adjustment for both men and women (Quintana & Kerr, 1993). Alternatively, the shift may reflect gender differences in the meaning placed on various psychological indicators of adult status. For example, connectedness in interpersonal relationships appears to be valued by women, whereas men regard self-sufficiency as important. Amplification of these natural qualities during the first year in college appears to be negatively correlated with psychological adjustment. Consequently, poor adjustment during this time may arise from distinct pathways for men and women that may be a magnification of their normal developmental courses (Holmbeck & Wandrei, 1993). The inconsistencies observed in studies of college students reveal that additional research is needed in this area to identify gender patterns in maladjustment during the transition to adulthood, as well as possible underlying mechanisms.

Implications of internalizing symptoms during emerging adulthood. The long-term effects of depression during emerging adulthood also appear to differ from that of adolescence and adulthood. A major depressive episode during the transition to adulthood can undermine an individual's ability to follow a sound developmental path, which may, in turn, lead to "significant long-term morbidity" (Gutman & Sameroff, 2004; Rao et al., 1995; Reinherz et al., 1999, p. 501). Individuals who develop depression during emerging adulthood are more susceptible to subsequent dysfunction (Rao et al., 1995; Reinherz, 1999; Walker, Sabuwalla, & Huot, 2004). This differs from the consequences of depression during adolescence, as adolescents who experience a depressive episode, but do not have a recurrent episode during emerging adulthood, are likely to have normal functioning as adults (Rao et al., 1995). Because the presentation of internalizing symptoms during emerging adulthood is unique in its relation to gender,

symptoms, and chronicity, identification of psychosocial determinants warrants further examination.

Summary of internalizing symptoms. The transition to adulthood can be a difficult period for many individuals and can produce significant internalizing symptoms (Reinherz et al., 1999; Reinherz et al., 2003). The factors that predict the occurrence of these symptoms during emerging adulthood tend to be unique to the transitional nature of this period (Gutman & Sameroff, 2004; Schulenberg & Zarrett, 2006). In particular, the multiple changes, which occur during the late teens and early twenties, require transformation and growth. As individuals shift from adolescence to adulthood, they may be particularly vulnerable to distress (Amada & Grayson, 1989; Graber & Brooks-Gunn, 1996a). Although there appears to be a relation between psychosocial development and internalizing symptoms, it has received little attention in the research (Walters, 1989). Consequently, it may be valuable to examine the factors that mediate and moderate this relation.

Mediating and Moderating Factors of Internalizing Symptoms

With evidence that emerging adulthood is a unique developmental period, it would be advantageous to organize the information that exists, as well as empirically study the entire age range of individuals in this age group so as to gain a more complete understanding of the developmental process during this time (Berry, 2004). Research indicates that individuals who do not complete crucial developmental tasks such as achieving autonomy, psychologically separating from parents, and developing an identity are at risk for emotional distress, and even psychopathology (Hoffman & Weiss, 1987; Holmbeck & Wandrei, 1993; Reinherz et al., 1999). Although current theory emphasizes

the transactional nature of intrapersonal and external factors on distress during adolescence, the relation among these factors over the course of emerging adulthood has received little attention (Shanahan & Bauer, 2004). Specifically, it is unclear whether difficulty progressing through psychosocial developmental tasks during college affects the ability to cope effectively with unfamiliar demands after college and whether this, in turn, influences mental health. Moreover, research has also not examined factors that may increase vulnerability to maladjustment. A better understanding of the mediating and moderating factors of these relations is necessary to develop targeted prevention and intervention programs in the future. The current study examined feeling “in-between” and perceptions of stress as mediating factors and perceptions of stress, gender, and ability to meet expectations as moderating factors.

Feeling “in-between” as a mediator. As discussed above, emerging adulthood is a time of interindividual and intraindividual demographic variation. Emerging adults generally perceive themselves as having left adolescence, but not yet completely entering adulthood (Arnett, 2000a). As a result, many individuals may feel “in-between,” or aberrant (Arnett, 2000a; Dubas & Petersen, 1996; Graber & Brooks-Gunn, 1996b; Mortimer et al., 2002). According to a study by Arnett (1997), persons between the ages of 18 and 28 consider several transitions critical to attaining adult status. Although two of these were traditional role transitions—“becoming financially independent from parents” and “no longer living in parents’ household”—the others were psychological or behavioral markers. Psychological markers included endorsing items such as “decide on personal beliefs and values independently from parents or other influences” and “establish a relationship with parents as an equal adult.” These indicators of adult status

are “elusive,” “individualistic,” and “gradual” (p. 3). There is more of a psychological component to them relative to the traditional adult role markers discussed earlier (Arnett, 1997). This suggests that psychosocial development may play a greater role than once believed in making the transition to adulthood. Furthermore, societal expectations about development during this time may be inconsistent with emerging adults’ own expectations, understanding, and experiences of what it means to be an adult.

In fact, studies of emerging adults’ self-perceptions substantiate the changing attitudes of persons in their late teens and early twenties (Arnett & Taber, 1994; Scheer, Unger, & Brown, 1996). In Arnett’s (1997) study, 63% of college students responded “ambiguously” (i.e., “in some respects yes, in some respects no”) to items asking whether they had reached adulthood and only 27% responded “yes.” Among older individuals in the same study, 35% of participants responded “ambiguously,” whereas 63% responded “yes” they were adults (Arnett, 1997). These findings suggest that persons making the transition to adulthood are uncertain how to classify themselves (Arnett, 2000a).

Because many emerging adults do not feel like adolescents or adults and they experience varying levels of autonomy during this period, they may not have a clear understanding of what is normative in terms of their psychosocial development. The importance placed on achieving developmental tasks, roles, and responsibilities, therefore, appears to mediate the relation between achieving those tasks and adjustment (Moore, 1987). Individuals’ appraisals and expectations of their psychosocial development appear to inform their perception of self. Emerging adults receive frequent and conflicting messages from popular culture and society, which imply that separateness is indicative of maturity, whereas connectedness is not; however, most emerging adults

continue to care about and be influenced by their parents (Quintana & Kerr, 1993).

This self-perception can potentially have a negative effect on emotional adjustment (Dubas & Petersen, 1996; Graber & Brooks-Gunn, 1996a). If emerging adults do not live up to what they believe are cultural and parental expectations, they may feel “in-between” (Moore, 1987). Because of this association, it is possible that the perception of feeling “in-between” mediates the relation between psychosocial development and psychological symptomatology.

Previous cross-sectional research by the author examined whether feeling “in-between” mediated the relation between completion of psychosocial developmental tasks and mental health outcomes in college seniors (Edidin & Gaylord-Harden, 2009). Autonomy development and identity formation predicted feeling “in-between” and internalizing symptoms and feeling “in-between” predicted internalizing symptoms; however, feeling “in-between” only mediated the relation between self governance and internalizing symptoms. These results may be unique to this age and status of the population. While self governance may be uniquely contingent on parental beliefs, expectations, and behaviors, college seniors may generally have similar experiences to their classmates with regard to issues of separation-individuation and identity formation. It may be that this developmental ambiguity is more likely to give rise to feelings of being “in-between” that are perceived as stressful and anxiety-provoking after college when there is more variability in individuals’ experiences (Edidin & Gaylord-Harden, 2009).

Feeling “off time” as a mediator. Although the absolute perception of feeling “in-between” adolescence and adulthood may negatively impact well-being, it may also

be that the relative perception of feeling “off time” compared to peers has this effect.

In other words, emerging adults who perceive themselves as not meeting developmental tasks at the same time as their peers may feel abnormal. This, in turn, may have a deleterious effect on well-being and produce depressive symptoms (Dubas & Petersen, 1996).

Physiological arousal as a mediator. Transitions produced by difficulty completing developmental tasks can be extremely stressful. In studies of adolescents, a strong association has been repeatedly found between transitions and internalizing symptoms (Garber, Keiley, & Martin, 2002). Developmental transitions create multiple new challenges and demands on the coping system, which potentially present as additional stressors (Garber et al., 2002; Graber & Brooks-Gunn, 1996b). These factors affect biological functions and produce autonomic arousal, which is the physiological experience associated with stress. This, in turn, has been linked to depression and other negative psychological outcomes (Walker et al., 2004).

Perceived stress as a moderator. While the physical experience of stress may explain the relation between psychosocial development and adjustment, the perception of external stressors may demonstrate a moderating effect, making individuals more vulnerable to internalizing symptoms during a developmental transition. Research has not only demonstrated that external stressors and psychosocial development can independently affect development, but there also may be an interaction effect (Lewinsohn et al., 2003). One study found, for example, that autonomy buffers the relation between social stress and psychological maladjustment among young emerging adults (Turner, Taylor, & Gundy, 2004). It remains unclear whether greater maturity across areas of

psychosocial developmental tasks would buffer the impact of environmental stress that occurs after emerging adults graduate from college and enter the adult world. The mediating and moderating effects of stress on the relation between psychosocial development and internalizing symptoms, therefore, merits further examination.

Ability to meet expectations as a moderator. As the sense of being lost between adolescence and adulthood may explain the relation between psychosocial developmental and distress, failure to attain goals and meet expectations may moderate the relation. Emerging adulthood is when individuals form beliefs about how their lives will take shape (Arnett, 2006). Theorists have proposed that, due to intrinsic needs for independence and competence, the attainment of developmental roles and responsibilities must be satisfied for achievement of well-being (Ryan & Deci, 2000). Studies have revealed the importance of expectations across transitions. During emerging adulthood, expectations tend to include beliefs about financial independence and employment, separate residence, and the timing of events (Arnett, 1997; Arnett, 2000b; Arnett, 2006; Goldscheider & Goldscheider, 1994; Roisman, Masten, Coatsworth, & Tellegen, 2004; Thiessen & Looker, 1999). Despite studies that support the importance of expectations, they have neither been longitudinal, nor have they examined whether failure to meet objectives affects adjustment (Graber & Brooks-Gunn, 1996a).

In industrialized societies, individuals are expected to be able to “stand alone” (Arnett, 2006, p. 305), as independent, self-sufficient beings (Arnett, 1997). This notion shapes short- and long-term goals that often include hopeful aspirations for interpersonal relationships, employment and financial independence, as well as residential status (Arnett, 1997; Arnett, 2000b; Goldscheider & Goldscheider, 1994; Reinherz et al., 1999;

Tanner, 2006). While failure to actualize goals is common, it is frequently associated with maladjustment (Reinherz et al., 1999; Tanner, 2006). One study, which surveyed young emerging adults, found that most individuals believed that they would live independently after college graduation. This sentiment was echoed by their parents. Nonetheless, the process of acquiring residential independence occurred significantly more slowly than anticipated (Goldscheider & Goldscheider, 1994). Emerging adults also tend to have high hopes for employment after graduation. Although competence in the area of work has not been directly associated with adjustment during the transition to adulthood, employment affects financial stability, which is predictive of well-being (Arnett, 2006; Borgen, Amundson, & Tench, 1996; Roisman et al., 2004).

The impact of gender on this relation has also been examined. One study demonstrated that both males and females frequently possess expectations about emerging adulthood that are subsequently not met. The nature of their assumptions differed, as females were more likely than males to indicate that they had not realized their goals in the area of family. Additionally, many individuals disclosed that they had to change their goals, because they believed that the ones they initially held were unattainable. Although some participants effectively adjusted to the inability to meet their expectations, others did not and, as a result, experienced more significant discontent (Mortimer et al., 2002). It may be, then, that unmet expectations account for the relation between psychosocial development and adjustment.

Gender as a moderator. As described above, the influence of gender on the relation between psychosocial development and maladjustment has generally received little attention. When this association has been studied, the results have been

inconsistent. While gender differences in autonomy development exist, with the exception of financial independence, studies have generally not explored how it affects well-being. Specifically, women work fewer hours than men and, therefore, they are less self-sufficient (Cohen et al., 2003; Sneed et al., 2006). Lower levels of financial independence are, in turn, predictive of higher levels of depression (Mortimer et al., 2002). Similarly, few gender differences in identity formation have been found (Adams et al., 1979; Kroger, 1985; Waterman, 1982; Whitbourne & Tesch, 1985). When gender differences have been found there is not a clear pattern (Luyckx et al., 2006; Montgomery, 2005; Waterman, 1982). It follows that if there are few gender differences in identity development, gender would not affect the relation between identity formation and internalizing symptoms.

While studies that have examined the effect of gender on separation-individuation have also been inconsistent (Holmbeck & Wandrei, 1993; Kroger, 1985; Ollech & McCarthy, 1997; Quintana & Kerr, 1993), there is greater theoretical evidence that differences between males and females exist. Multiple theories suggest that the process of separation and individuation is culturally influenced and, therefore, different for males and females (Gilligan, 1979; Gurevitz Stern, 2004; Josselson, 1987). If there are unique developmental pathways for males and females, gender may potentially moderate the relation between separation-individuation and internalizing symptoms (Holmbeck & Wandrei, 1993; Lapsley et al., 1989). Given that research that has studied the effect of gender on psychosocial development and its impact on adjustment has been conflicting, further examination of these relations would be valuable.

Summary of mediating and moderating factors. Given that the construct of emerging adulthood has only surfaced in the last decade, research is in its early stages. Many studies have demonstrated that emerging adulthood is distinct from other developmental stages, but less attention has been paid to assessing the developmental nature of the stage itself. As such, there are significant gaps in the current knowledge base. Various aspects of development related to emerging adulthood have been explored, but most research has focused on questions of how emerging adulthood is distinct from other developmental periods, what are the early developmental predictors of development during emerging adulthood, and what are the external predictors of adjustment (e.g. parent-child and peer relationships). Although studies to date have not comprehensively examined development of the internal processes of the mind, research that can provide information about intrapsychic and relational development may be useful in quantitatively describing this period. Consequently, researchers have begun to call for studies that empirically describe development over the course of emerging adulthood (Arnett, 2006).

Moreover, research has not examined the reason for the increased rate of internalizing symptoms among emerging adults compared to other age groups. The factors that predict success and adaptation during the transition to adulthood as well as those that are protective and increase vulnerability to mental health problems remain unknown (Tanner, 2006); however, this information could be used to develop programs designed to prevent or improve mental health problems. Further, studies that have examined gender differences in depression have been inconsistent. Although some studies indicate that the increasing discrepancy in the rate of depression between males

and females during adolescence continues into emerging adulthood, many others have found that there appears to be a comparable rate of depression during emerging adulthood. It is possible that as the variability in the sequence and timing of developmental tasks increases, role expectations become more diffuse, and feeling “in-between” becomes more common, the experience of male and female emerging adults becomes more similar. As a result, this may meaningfully affect the discrepancy in the prevalence between males and females. Alternatively, it is possible that as men’s and women’s roles and responsibilities are increasingly perceived as comparable, they are equally susceptible to intrapersonal stress and feeling “in-between.”

Finally, there been a paucity of research on emerging adulthood as a field so that there is little known about psychosocial development and psychological adjustment over time. What we do know has been obtained primarily from freshman and sophomore college student populations, which may not be representative of the period as a whole. This is particularly true of the years immediately following college, when individuals experience unique stressors associated with entering the adult world as well as less support (Gurevitz Stern, 2004; Quintana & Kerr, 1993; Wight, Sepulveda, & Aneshensel, 2004).

The Current Study

The purpose of this study, then, was to examine the composition of this period through a developmental lens. Specifically, the objectives were to determine whether psychosocial developmental factors were predictive of internalizing symptoms and well-being over time for emerging adults, as well as consider possible mediating and moderating factors for these relations. There were several variables that theoretically

appeared to account for the uncertainty and lack of grounding characteristic of emerging adulthood, but none of these had been explored in any detail. In particular, current theory suggested that emerging adults perceived themselves as being “in-between” adolescence and adulthood; however, few studies had empirically examined whether this subjective feeling is related to psychosocial development. A previous cross-sectional study by the author, which used participants in their senior year of college, found that autonomy development and identity formation were associated with feeling “in-between.” There also appeared to be a relation between psychosocial development and internalizing disorders as well as between feeling “in-between” and adjustment (Edidin & Gaylord-Harden, 2009). Although a relation between psychosocial development and internalizing symptoms was found in the aforementioned study, there was not a relation between feeling “in-between” and internalizing symptoms (Edidin & Gaylord-Harden, 2009). It may be that feeling “in-between” is common among those who are still in college and is, therefore, not upsetting. This state of limbo may cause more distress in emerging adults who have graduated from college, as it is less likely to be the norm.

Similarly, research has found that individuals who achieve certain developmental tasks later have more difficulty transitioning to adulthood and experience higher levels of internalizing symptoms. It has been suggested that the perception of feeling “off time” relative to peers and societal expectations may explain the relation between development and well-being, but no studies to date have measured this. As such, the current study attempted to address this gap in the literature.

Theory also suggested that transitions can produce significant levels of stress. Given that individuals experience multiple transitions over the course of emerging adulthood, it may be that they experience significant levels of stress. These may tax coping resources and produce maladjustment. It was possible, then, that stress explained the relation between psychosocial developmental transitions and both internalizing symptoms and well-being. Thus, this study sought to examine whether the subjective perception of being “in-between” feeling “off time,” and stress mediated the relation between psychosocial development and adjustment.

There were also several variables that appeared to moderate the relation between achievement of developmental tasks and internalizing symptoms. As stress may be a result of psychosocial development, changes associated with transitions may produce external stressors. The consequent perception of stress may, then, influence well-being. It was possible that the degree of external stressors moderated the impact of psychosocial development on internalizing symptoms and well-being; however, studies to date have not examined this relation. It was also possible that the ability to meet expectations affected the relation between development and adjustment. That is, emerging adults tend to cultivate goals and expectations for their future, but if these are not met, they may perceive themselves as incompetent. Although the impact of independence and competence on well-being has been established, research has not considered how this fits into a developmental framework. Specifically, it is possible that individuals who have greater difficulty progressing through development are more vulnerable to external markers of competence as it relates to well-being. Finally, the moderating effects of gender were examined. Although gender differences in depression during adolescence

and adulthood exist, the results of studies that have examined internalizing symptoms during emerging adulthood have been inconsistent; thus, further research was warranted. Thus, the moderating effects of stress, gender, and the ability to meet expectations on the relation between psychosocial development and internalizing symptoms were explored in the current study.

To conceptualize these processes, a theoretical framework was developed (see Figure 1). First, it was expected that less autonomy, higher levels of maladaptive separation-individuation, and lower levels of healthy identity formation (Time 1 and Time 2) would be related to more internalizing symptoms as reflected by higher internalizing and lower well-being scores (Time 2). In other words, higher scores on measures of financial independence, separate residence, and self governance, which constitute functional autonomy, would be associated with fewer internalizing symptoms and a greater sense of well-being. Higher scores on measures of engulfment anxiety and nurturance seeking, which compose the separation-individuation construct, and are reflective of problematic separation-individuation, would be associated with higher levels of internalizing symptoms and lower levels of well-being. Additionally, higher scores on measures of healthier identity development, moratorium and achievement, would be related to fewer internalizing symptoms and a greater sense of well-being.

Second, it was hypothesized that feeling “in-between,” feeling “off time,” and stress (Time 2) would mediate the relation between developmental tasks (Time 1 and Time 2) and internalizing symptoms (Time 2) as well as between developmental tasks (Time 1 and Time 2) and well-being (Time 2) (see Figures 2, 3, and 4). In other words, it was predicted that lower scores on measures of autonomy would be related to higher levels of

Figure 1. Hypothesized relations among psychosocial development tasks and internalizing symptoms.

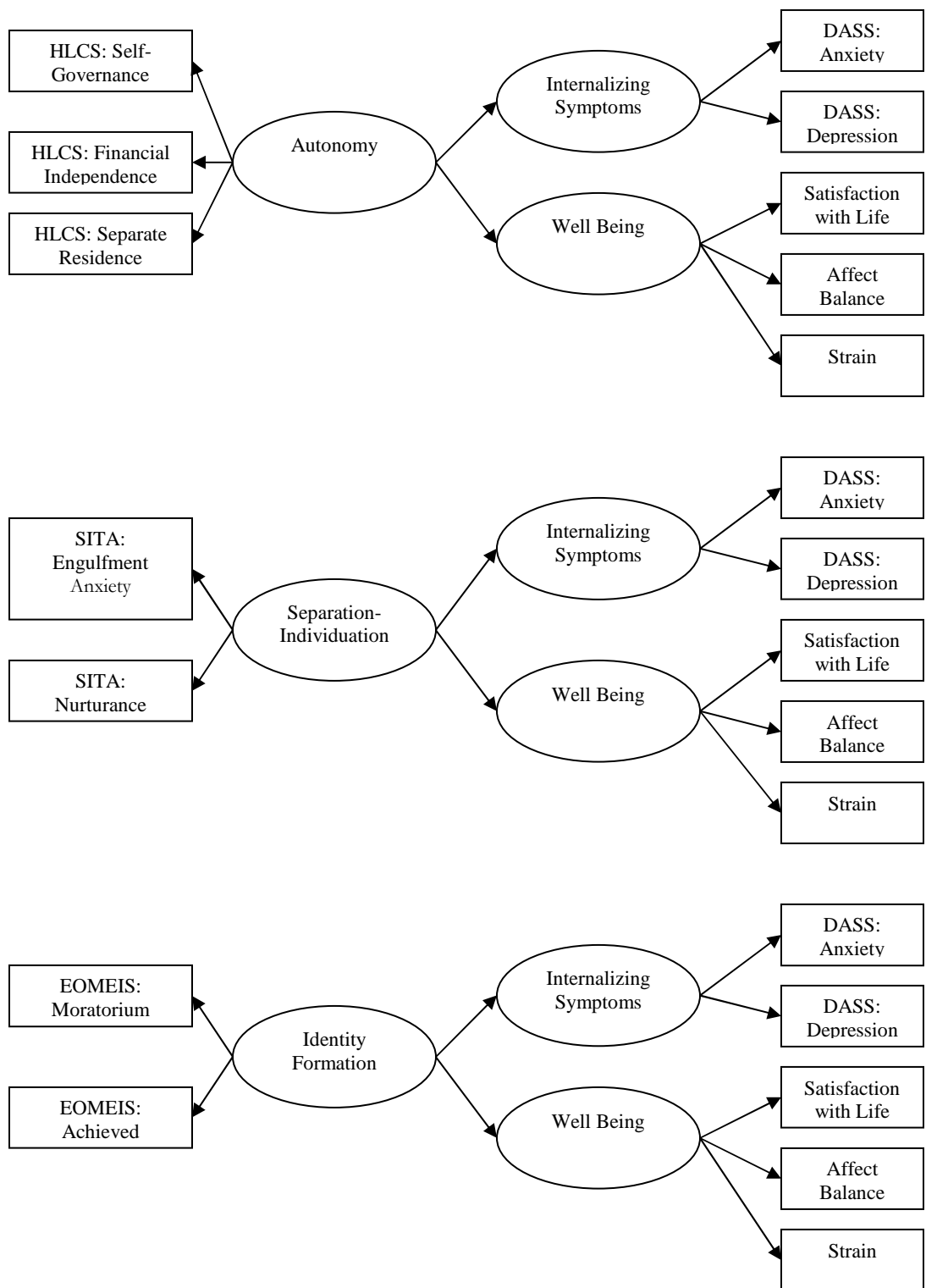


Figure 2. Hypothesized relations among psychosocial developmental tasks, feeling “in-between,” and internalizing symptoms and well-being.

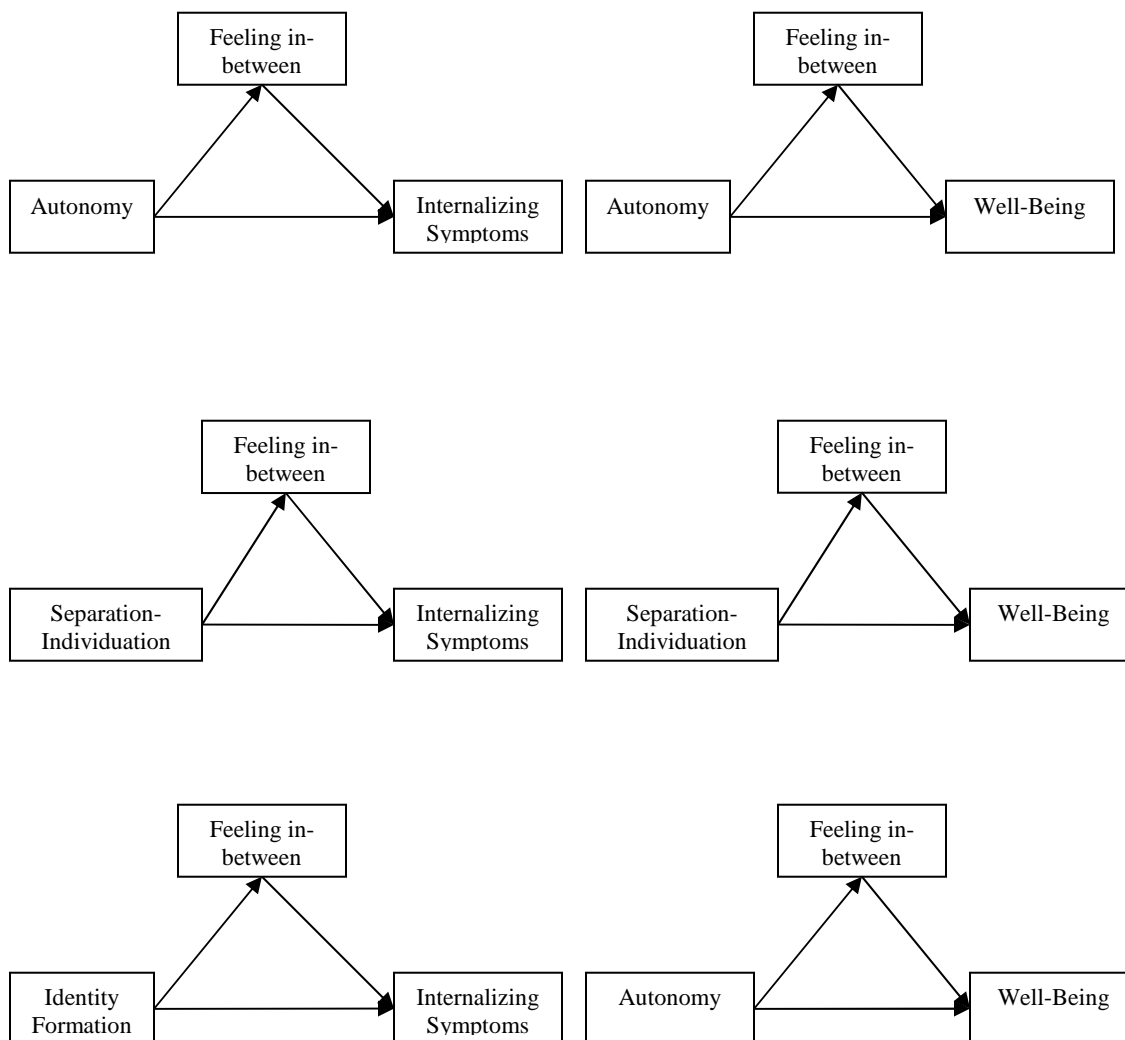


Figure 3. Hypothesized relations among psychosocial developmental tasks, feeling “off time,” and internalizing symptoms and well-being.

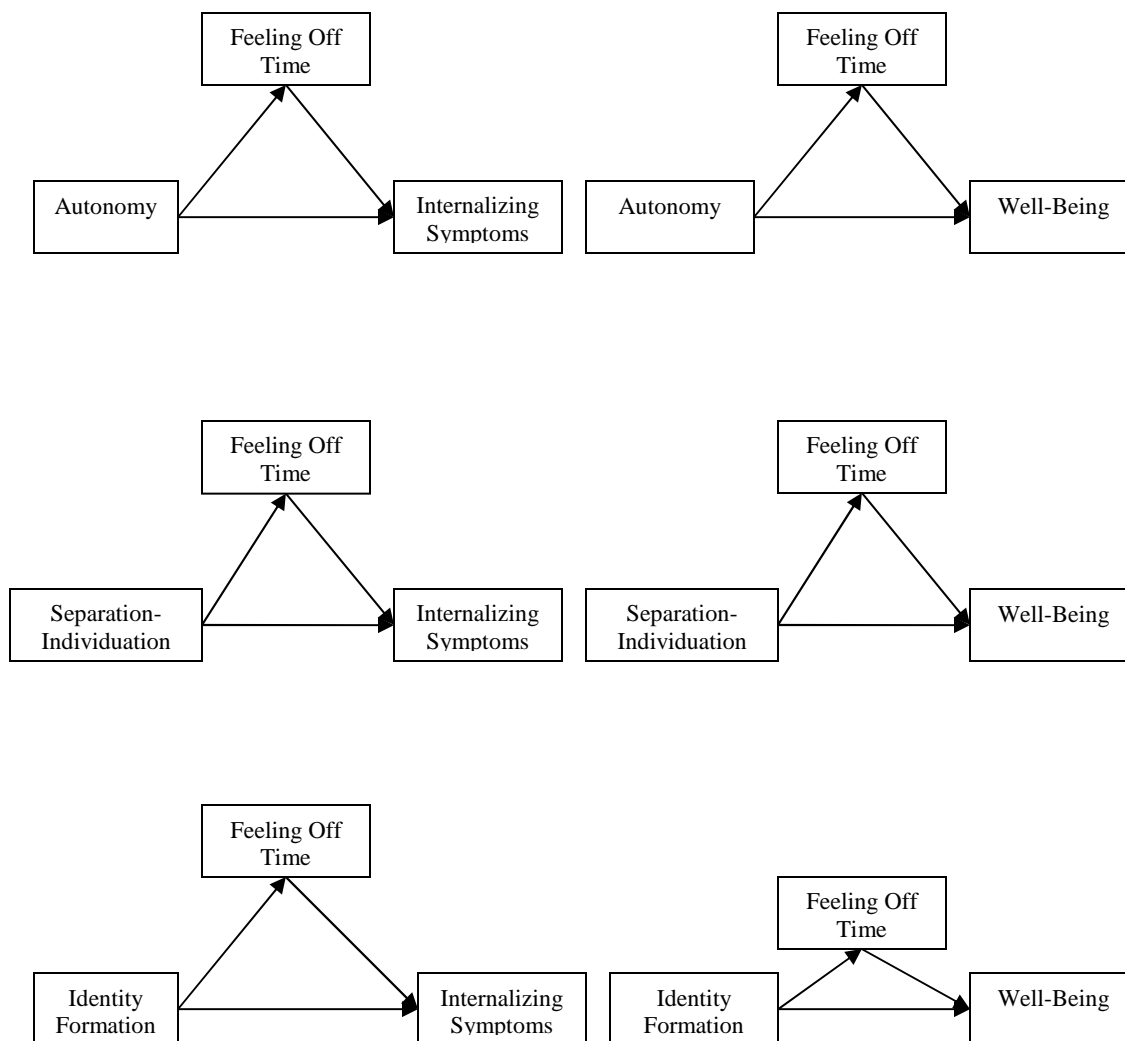
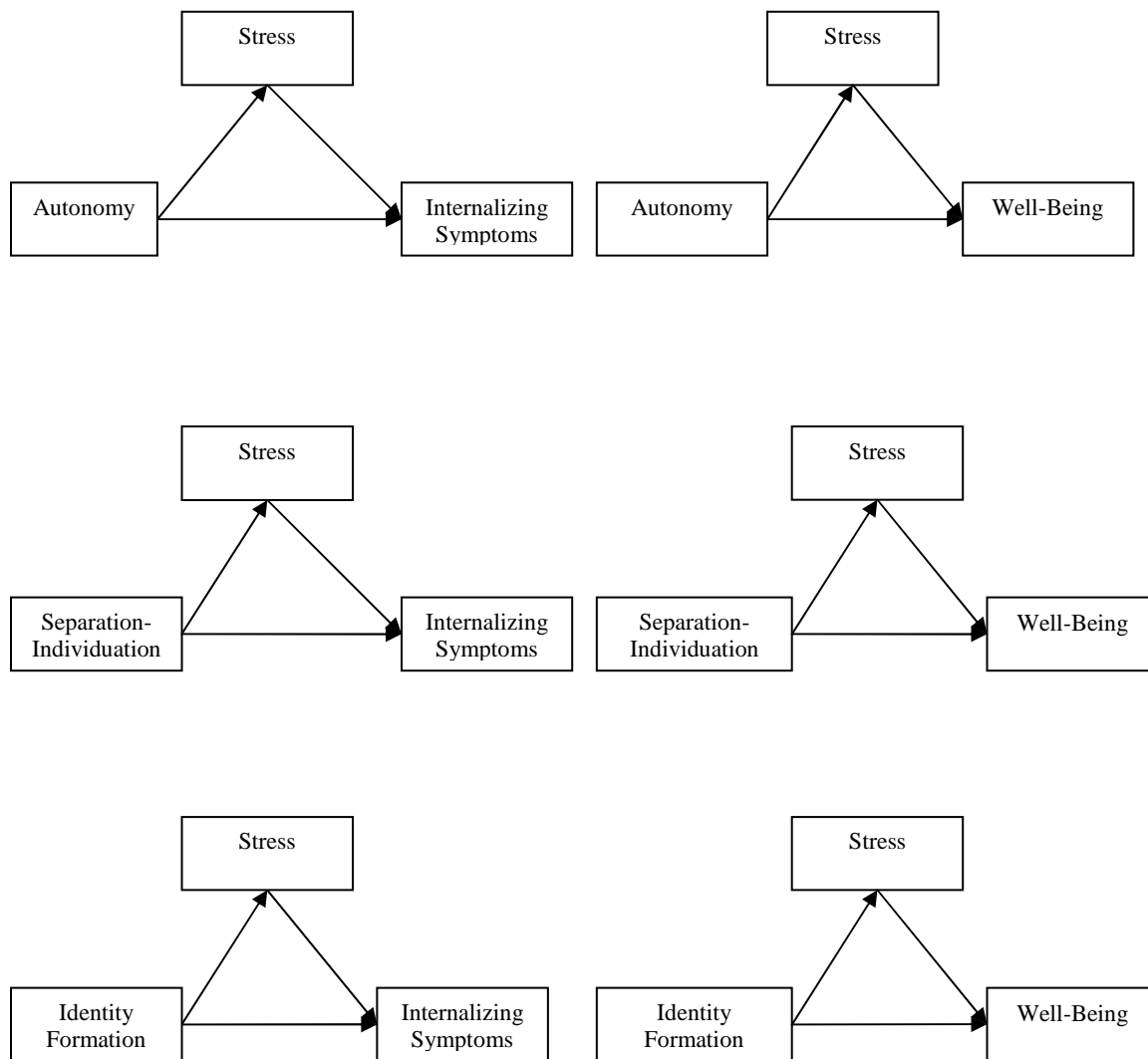


Figure 4. Hypothesized relations among psychosocial developmental tasks, stress, and internalizing symptoms and well-being.



feeling “in-between,” feeling “off time,” and stress. Higher scores on measures of separation-individuation would predict higher levels of “feeling in-between,” feeling “off time,” and stress. Lower scores on measures identity formation would predict higher levels of “feeling in-between” and feeling “off time,” and stress. Higher scores on measures of feeling “in-between,” feeling “off time,” and stress would, in turn, lead to higher scores on measures of internalizing symptoms and lower scores on measures of well-being.

Third, it was expected that the ability to meet expectations and perceptions of stress (Time 2) would moderate the relation between psychosocial development (Time 1 and Time 2) and internalizing symptoms (Time 2) as well as between psychosocial development (Time 1 and Time 2) and well-being (Time 2). That is, high levels of stress and a larger discrepancy between individuals’ expectations regarding independence and their actual experience of independence would be associated with lower levels of well-being and higher levels of internalizing symptoms for emerging adults who experience lower scores on measures of autonomy, higher scores on measures of separation-individuation, and lower scores on measures of healthy identity development.

Fourth, the moderating effect of gender on the relation between each of the developmental tasks and internalizing symptoms was examined. Because studies of gender differences in autonomy development and identity formation have been inconsistent, the moderating effect of gender was explored. In contrast, there was strong theoretical evidence that indicated that gender differences in socialization and psychosocial development affect interpersonal development. These theories suggest that gender would moderate the relations between separation-individuation and internalizing

symptoms as well as between separation-individuation and well-being. Specifically, higher scores on measures of separation-individuation were believed to be predictive of internalizing symptoms for females, but not males. The effect of gender on the relations between psychosocial development and the mediating factors was also explored. It was hypothesized that gender would only moderate the relation between engulfment anxiety and feeling “in-between” and feeling “off time,” such that males, but not females, would feel more “in-between” and “off time” when they experienced higher level of engulfment anxiety.

CHAPTER II

METHODS

Participants

Eligible participants were 212 students (45 males and 167 females) who were initially recruited during their senior year of college from one private mid-sized Midwestern university located in a large urban center and one small private college on the East Coast. Of these 212 persons who participated in the study at Time 1, 96 participants (45.3%, 22 males and 74 females) completed the questionnaires at Time 1 and Time 2.

At Time 2, participants ranged in age from 20 to 26 years old ($M = 21.64$ yrs, $SD = .884$). Thirty-eight participants (39.6%) had graduated from the Midwestern university and 58 (60.4%) graduated from the Eastern college. Participants' major in college included: 17.7% ($n = 17$) double major, 10.4% ($n = 10$) humanities only, 1% ($n = 1$) math only, 16.7% ($n = 16$) sciences only, 26% ($n = 25$) social sciences only, and 10.4% ($n = 10$) other.

The racial-ethnic background of the sample was as follows: 1% African American ($n = 1$), 4.2% Asian/Pacific Islander ($n = 4$), 5.2% Latino/a ($n = 5$), 82.3% White ($n = 79$), and 7.3% Other ($n = 7$). All of the participants were single. The religious identification was as follows: 33.3% ($n = 32$) Catholic, 7.3% ($n = 7$) Jewish, 1% ($n = 1$) Muslim, 18.8% ($n = 18$) Protestant, 11.5% ($n = 11$) Other, and 2.1% ($n = 27$) None.

The socioeconomic background of the sample, which was estimated by parents' highest level of education, was as follows: 40.6% ($n = 39$) of fathers and 35.4% ($n = 34$) of mothers had a graduate degree, 28% ($n = 39$) of fathers and 33.3% ($n = 32$) of mothers had a college degree, 7.3% ($n = 7$) of fathers and 3.1% ($n = 3$) of mothers had a vocational degree, 10.4% ($n = 10$) of fathers and 17.7% ($n = 17$) of mothers had completed some college or vocational training, 7.3% ($n = 7$) of fathers and 8.3% ($n = 8$) of mothers had a high school degree, and 3.1% ($n = 3$) of fathers and 2.1% ($n = 2$) of mothers had not completed high school.

Procedures

Eligible participants were those individuals who completed the group of measures during both waves of the study (in 2006 and 2008). Participants who agreed to the possibility of being contacted for additional data collection during the initial consent process were emailed a brief description of the current nature of the study and a link to the online survey using Opinio software. Participants were asked to complete current demographic information such as age, relationship status, and residential status. Next, they were asked to complete a series of questionnaires to assess six constructs: autonomy development, separation-individuation, identity formation, feeling "in-between," feeling "off time," physiological arousal due to stress, perceived external stress, internalizing symptoms, and well-being.

Measures

Autonomy. The ability to function autonomously was measured by the Home Leaving Cognitions Scale (HLCS; Moore, 1987). The questionnaire includes 31 items which assess the degree to which one can function independently from one's parents.

The items are rated on a 7-point Likert scale, ranging from (1) *does not apply to me at all* to (7) *applies to me very much*. Higher scores on the measure indicate higher levels of autonomy. Although the original questionnaire asks participants to respond how important each item is for them “defined in whatever way is meaningful to you,” in this study participants were asked to answer the items in terms of how well each describes them at present. Three of the 8 subscales were used in the current study. Self-Governance (Time 1 $\alpha = .780$; Time 2 $\alpha = .820$) measures the ability to manage one’s own affairs and make one’s own decisions. It includes questions such as “[h]ave to take care of myself (e.g. cook, laundry, etc.) and “[b]eing independent.” Financial Independence (Time 1 $\alpha = .863$; Time 2 $\alpha = .827$) measures the extent to which a person supports him or herself and contains items such as “[h]aving a job” and “[n]o longer receiving financial support from family.” Finally, Separate Residence, which assesses how residentially independent one is, includes items such as “[g]oing back home each summer” and “[m]oving into an apartment.” Due to the difference in the number of items between this subscale and the others on this measure, the Spearman-Brown Prophecy coefficients were calculated for both time points (Bryant & Yarnold, 1990). The Spearman Brown-Prophecy alphas were .913 at Time 1 and .903 at Time 2. The eight-factor model of the HLCS has been supported by factor analytic studies (Moore, 1987).

Separation-individuation. Issues of separation and individuation was assessed by the Separation-Individuation Test of Adolescence (SITA; Levine et al., 1986). The SITA is a self-report questionnaire, which assesses central elements of the separation-individuation process. The measure includes 107 items rated on a Likert scale ranging from (1) *always true or strongly agree* to (5) *never true or strongly disagree*. Two of the

7 subscales were used in this study. Higher scores on both subscales indicate higher levels of maladaptive separation-individuation. Engulfment Anxiety (Time 1: $\alpha = .779$; Time 2: $\alpha = .853$) measures the extent to which persons fear intimate interpersonal relationships because they are concerned that they will lose their independence. It includes items such as “[s]ometimes my parents are so overprotective I feel smothered” and “[m]y parents keep close tabs on my whereabouts.” The Nurturance Seeking (Time 1: $\alpha = .693$; Time 2: $\alpha = .737$) subscale measures the degree to which an individual feels oneness in his or her relationships with others. It includes items such as “I feel lonely when I’m away from my parents for any extended period of time.” These subscales were chosen because they tap into feelings regarding independence, specifically from parents. Additionally, Engulfment Anxiety is strongly correlated with adjustment (Holmbeck & Leake, 1999; McClanahan & Holmbeck, 1992). Theoretical-substantive, internal-structural, and external criterion validities of the SITA have been demonstrated (Levine et al., 1986; McClanahan & Holmbeck, 1992).

Identity formation. The Extended Objective Measure of Ego Identity Status (EOMEIS-2; Bennion & Adams, 1986) was used to assess identity development. The EOMEIS-2 measures identity development using a 64-item, 6-point Likert-type scale. Higher scores on this measure are suggestive of healthier identity formation. Item responses range from (1) *strongly agree* to (6) *strongly disagree*. The questionnaire measures the following various domain areas, which will be combined to create a single score: occupation, religion, politics, philosophical life style, friendship, dating, gender roles, and recreation. The measure has shown adequate internal consistency in previous studies with Cronbach’s alphas ranging from .69 to .87 and test-retest reliabilities from

.82 to .90 (Blustein & Phillips, 1990; Blustein, Devenis, & Kidney, 1989). In the current study, the Moratorium and the Identity Achieved subscales were employed in this study, because they reflect healthy exploration and achievement, relatively, and are therefore correlated with adjustment (Papini et al., 1989). The Moratorium subscale (Time 1: $\alpha = .806$; Time 2: $\alpha = .807$) includes items such as “I’m still trying to decide how capable I am as a person and what jobs are right for me” and the Identity Achievement (Time 1 $\alpha = .786$; Time 2 $\alpha = .786$) subscale contains items such as “[a]fter a lot of self-examination I have established a very definite view on what my own lifestyle will be will be.” Discriminant, convergent, and criterion-related validities of the EOMEIS-2 have been demonstrated (Bennion & Adams, 1986).

Feeling “in-between”. The Inventory of the Dimensions of Emerging Adulthood (IDEA; Reifman, Arnett, & Colwell, 2007) was used to measure feeling in-between. The IDEA is a 31-item measure of Emerging Adults’ perception of this time in their life. Persons were asked to answer the items based on the present. The “Feeling In-between” subscale, which is composed of three items, was used for Time 1 of this study. It includes items that attempt to capture information about how much a person feels between adolescence and adulthood; however, the orientation of the questions on the scale is towards adulthood. That is, the items ask about how much the individual perceives himself or herself as an adult. One example of a question is, “[i]s this period of your life a time of feeling adult in some ways, but not in others?” In order to also capture how much the individual continues to feel like an adolescent, as well as the perception of feeling in-between adolescence and adulthood, three questions were added. For example, participants were asked how much this is a “[t]ime of feeling adolescent in some ways

but not others.” All of the responses on the original scale and five of the amended scale lie on a 4-point scale with (1) *strongly disagree* to (4) *strongly agree*. One question on the amended scale lies on a 5-point Likert-types scale (1) *I feel completely like an adolescent* and (5) *I feel completely like an adult*. Higher scores on both measures were indicative of feeling more “in-between.” The measure shows adequate internal consistencies (Time 1: $\alpha = .761$; Time 2: $\alpha = .786$). The one-month test-retest reliability is .37; however, since this may reflect the instability characteristic of this period and not problems with the measure (Reifman et al., 2007). Exploratory and confirmatory factor analyses support the five-factor model and, therefore, the construct validity of the measure (Reifman et al, 2007).

Feeling “off-time.” To account for whether individuals feel as if they are in the same developmental place as their peers, a question was included to address this. Specifically, participants were asked to complete the following sentence stem, “[r]elative to my peers, I feel that they are,” with one of three choices: (1) *ahead of where I am in the process of becoming an adult*, (2) *in the same place as I am*, or (3) *behind where I am in the process of becoming an adult*.

Physiological arousal due to stress. Physiological arousal due to stress was measured using the Depression, Anxiety, and Stress Scale (DASS-21; Lovibond & Lovibond, 1995). The DASS-21 is a 21-item self-report questionnaire, which assesses depression, anxiety, and stress. Items measure symptoms of each emotional state, and associated physical arousal, during the past week and are scored on a 0 to 3 scale with (0) *did not apply to me at all* and (3) *applied to me very much, or most of the time*. Higher scores on this measure suggest higher levels of stress. Principal and confirmatory factor

analyses have confirmed the factor structure of the measure. The stress subscale (Time 1: $\alpha = .847$; Time 2: $\alpha = .872$) measures physical arousal due to stress, such as tension and reactivity (Antony, Bieling, Cox, Enns, & Swinson, 1998). Construct validity has been supported by factor analytic studies (Lovibond and Lovibond, 1995).

Perceived external stress. In contrast to the DASS-21, which measures physiological symptoms and impairment associated with stress, the Perceived Stress Scale-10 (PSS-10; Cohen & Williamson, 1988) is a 10-item self-report questionnaire, which measures the appraisal of stress. Specifically, the items assess for emotions and cognitions associated with stress. The PSS-10 assesses nonspecific perceived stress during the past month due to overall life situation and beliefs about future experiences. Six of the items are scored on a 0 to 4 scale with (0) *never* and (3) *very often*, and four of the items are reversed scored. Higher scores on this measure reflect higher levels of stress. The internal reliability of the measure was good (Time 2: $\alpha = .901$) and principal components factor analysis has confirmed the factor structure (Cohen, Kamarck, & Mermelstein, 1983; Cohen & Williamson, 1988).

This measure was added to the second wave, as previous analyses found that the physiological component mediated the relation between psychosocial development and internalizing symptoms, but did not moderate it. Thus, it was believed that if stress moderated the relation between the independent and dependent variables, it was produced by an external source and needed to include a cognitive component. The PSS-10 was developed with college students and has been used repeatedly with emerging adults of all ages (Cohen et al., 1983; Cohen & Williamson, 1988; Reifman & Dunkel-Schetter, 1990). Moreover, studies have used the measure as a predictor of outcomes, such as

depression, and it has performed as favorably as measures of psychological symptoms associated with life events and physical arousal (Cohen & Williamson, 1988).

Ability to meet expectations. To assess whether individuals were able to meet their expectations about their future goals, individuals were asked about their expectations for the future during the first wave of the study. Specifically, they were asked how they thought they would be spending their time the year after college, as well as what they believed their residential and financial statuses would be at that time. In the current study, participants were asked how they are currently spending their time as well as about their current financial and residential statuses. For each question, the discrepancy between their expectations and their current status was assessed. For each question, individuals received a 0 or 1, with (0) current status is not what student expected or (1) current status is consistent, or partially consistent if the person included that they would spend their time in multiple ways, with the student's expectations. These scores were added such that individuals could receive a combined score of 0 to 3. Due to a negative Cronbach's alpha ($\alpha = -.089$), the items on the scale were not added together and the effect of failure to meet expectations in each area was independently examined.

Internalizing symptoms. Internalizing symptoms were also measured using the DASS-21. The Depression scale reflects loss of self-esteem and motivation and includes items such as "I couldn't seem to experience any positive feeling at all." The Anxiety scale includes items that are indicative of both state trait anxiety and more acute responses. Representative items include, "I perspired noticeably (e.g. hands sweaty) in the absence of high temperatures or physical exertion." Higher scores on this measure are indicative of higher levels of internalizing symptoms. In the current study,

Cronbach's alphas for Depression and Anxiety were .872 and .836, respectively, thus demonstrating good clinical reliability. These subscales were added to create a global measure of internalizing symptoms (Time 1 $\alpha = .891$; Time 2 $\alpha = .920$). Confirmatory and principal components factor analytic studies have supported a three-factor model of the DASS (Lovibond & Lovibond, 1995).

The DASS was used in the current study for a number of reasons. First, relative to the BDI and BAI, the depression and anxiety scales of the DASS have greater separation in factor loadings. There is a high correlation ($r = .50$) between the BAI and the BDI, which is believed to result from considerable clinical overlap among the symptoms. The DASS was created as an attempt to minimize the overlap between these two constructs. Conversely, the correlations among the factors of the DASS are: DASS Depression Scale and DASS Anxiety Scale, $r = .42$ (Lovibond & Lovibond, 1995).

While improving on existing measures of depression and anxiety, the DASS maintained strong convergent validity between the Beck instruments (DASS Depression Scale and BDI, $r = .74$; DASS Anxiety Scale and BAI, $r = .81$) (Lovibond & Lovibond, 1995).

Second, unlike the BDI and the BAI, the DASS was normed on non-clinical samples of college students. This is particularly advantageous given that it is consistent with the population that will be used in the present study (Lovibond & Lovibond, 1995).

Well-being. The construct of well-being has been measured in numerous ways (e.g. Diener, Suh, & Oishi 1997), using different combinations of a variety of factors. While tools typically include measures of affective and cognitive experiences, some include additional factors that could influence well-being (e.g. Bryant & Veroff, 1984). The model used in the current study was proposed by Campbell (1976) and included

measures of one's cognitive experience (satisfaction with life), a measure of one's affective experience, and perceived stress (strain). Satisfaction with life was assessed using the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). It is composed of five questions that are on a Likert scale with (1) *Strongly disagree* to (7) *Strongly agree*. It includes items such as, "[i]n most ways my life is close to ideal." Higher scores are indicative of higher levels of satisfaction with life (Diener et al., 1997). The SWLS has been tested by various researchers and has demonstrated good internal consistency ($\alpha = .79-.89$; Pavot & Diener, 1993). It has also been found to have adequate convergent validity with other measures of life satisfaction (Pavot & Diener, 1993). Affective experience was measured by the Affect Balance Scale (ABS; Bradburn, 1969). The ABS is a 10-item scale, which contains five items that reflect positive affect and five items that reflect negative affect. To create an overall score of affect balance, negative should be subtracted from positive affect and a constant of five is to be added to the total (Bradburn, 1969). Strain was assessed using a 16-item subscale from Dimensions of Subjective Mental Health (Bryant & Versoff, 1984). It measured psychophysical symptoms, drug-taking and alcohol use, and included items such as "[w]hen you feel worried, tense, or nervous, do you ever take medicines or drugs to help you handle things?" Some questions are dichotomous and scored *yes* or *no*, while others are continuous and range from (1) *never* to (4) *many times* (Bryant & Versoff, 1984). To create an overarching measure of well-being, total affect balance, satisfaction with life, and strain were added together, such that higher scores reflected higher levels of well-being ($\alpha = .853$).

CHAPTER III

RESULTS

Preliminary Analyses

Descriptive statistics and correlational analyses were conducted on the predictor and outcome variables. Means and standard deviations were computed for all participants as well as separately for males and females (Table 1). Correlations among all continuous variables for Time 1 and Time 2 are presented in Table 2, respectively. Finally, correlations among independent variables for Time 1 and dependent variables for Time 2 can be found in Table 3.

Hypothesis 1

The first hypothesis that the three psychosocial developmental variables (i.e., autonomy development, separation-individuation, and identity formation) would predict the two outcome variables (i.e., internalizing symptoms and well-being) was partially supported. Specifically, it was posited that lower scores on constructs of functional autonomy, higher scores on measures of separation-individuation, and lower scores on constructs of healthy identity formation at Time 1 and Time 2 would predict higher levels of internalizing symptoms and lower levels of well-being at Time 2 (Figure 1).

Regression analysis was used to test the first hypothesis. Each of the three psychosocial developmental constructs was tested as an independent predictor of each of the two outcome variables. In other words, the three subscales of autonomy development

Table 1.

Means, Standard Deviations, and Paired T Tests for Total Population, Males, and Females.

Variable	Overall			Males			Females		
	T1 (n = 96)	T2 (n = 96)	t (df)	T1 (n = 22)	T2 (n = 22)	t (df)	T1 (n = 74)	T2 (n = 74)	t (df)
FI	14.19 (6.65)	21.03 (6.06)	-8.377*** (95)	13.00 (6.84)	21.32 (5.77)	-5.294*** (21)	14.54 (6.59)	20.95 (6.18)	- 6.737*** (73)
SR	12.54 (5.22)	14.90 (5.24)	-4.240*** (95)	11.86 (4.67)	14.82 (4.92))	-2.832* (21)	12.73 (5.42)	35.58 (4.69)	-3.335** (73)
SG	33.11 (5.51)	35.31 (4.94)	-3.939*** (95)	31.09 (5.72)	34.41 (5.75)	-2.738* (21)	33.72 (5.34)	15.11 (5.29)	-2.974** (73)
ENG	19.75 (5.43)	17.32 (6.71)	3.904*** (95)	23.05 (6.46)	18.41 (6.26)	5.052*** (21)	18.77 (4.85)	17.00 (6.85)	2.377* (73)
NUR	15.09 (4.35)	14.28 (4.52)	2.113* (95)	14.36 (4.99)	12.45 (4.54)	2.617* (21)	15.31 (4.15)	14.82 (4.40)	1.094 (73)
MOR	50.26 (11.07)	50.49 (11.01)	-.23 (95)	50.41 (11.37)	49.09 (10.60)	.769 (21)	50.22 (11.06)	50.91 (11.16)	-.562 (73)
ACH	64.33 (11.13)	62.54 (10.35)	1.79 (95)	64.18 (10.94)	62.05 (10.19)	1.18 (21)	64.38 (11.25)	62.69 (10.46)	1.31 (73)
FIB T1	9.27 (2.12)	-	-	8.50 (2.16)	-	-	9.50 (2.08)	-	-
FIB T2	-	15.61 (3.47)	-	-	14.55 (3.33)	-	-	15.93 (3.47)	-
FOT	-	1.86 (.66)	-	-	1.91 (.75)	-	-	1.85 (.63)	-

Variable	Overall			Males			Females		
	T1 (n = 96)	T2 (n = 96)	t (df)	T1 (n = 22)	T2 (n = 22)	t (df)	T1 (n = 74)	T2 (n = 74)	t (df)
RE	-	.60 (.49)	-	-	.55 (.51)	-	-	.62 (.49)	-
TE	-	.30 (.46)	-	-	.29 (.46)	-	-	.31 (.46)	-
FE	-	.66 (.48)	-	-	.68 (.48)	-	-	.65 (.48)	-
PSS	-	16.92 (6.66)	-	-	14.95 (5.69)	-	-	17.50 (6.85)	-
Stress	7.07 (4.58)	13.50 (4.54)	-12.48*** (95)	7.27 (5.18)	12.27 (3.95)	-5.321*** (21)	7.01 (4.42)	13.86 (4.66)	11.39*** (73)
INT	8.10 (7.52)	21.96 (8.00)	-15.95*** (95)	8.95 (8.27)	20.77 (5.62)	-8.101*** (21)	7.85 (7.32)	22.31 (8.58)	13.98*** (73)
WB	-	76.65 (11.12)	-	-	78.70 (10.59)	-	-	76.64 (11.33)	-

Note. Standard deviations presented in parentheses under means. Degrees of freedom presented in parentheses under t value. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurture Seeking; MOR = Moratorium; ACH = Achievement; FIB = Feeling “In-between;” FOT = Feeling “Off Time;” Stress = Stress/Physiological Arousal; RE = Residential Expectations; TE = Time Expectations; FE = Financial Expectations; PSS = External Stress; INT = Internalizing Symptoms; WB = Well-being.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2.

Correlations among Variables for Time 1 and Time 2.

Variable	1	2	3	4	5	6	7	8 ^a	9	10	11
1. FI	1	.581***	.327**	-.143	-.002	-.055	.268**	-.122	-	-.034	-
2. SG	.515***	1	.379***	-.336**	-.032	-.221*	.448***	-.099	-	-.149	-
3. SR	.299**	.401***	1	-.139	.058	.053	.155	.008	-	.075	-
4. ENG	-.160	-.202*	-.265**	1	-.009	.204*	-.009	.027	-	.201*	-
5. NUR	-.081	-.032	.084	.127	1	.130	.096	.011	-	-.026	-
6. MOR	.068	-.157	.186	.133	.215*	1	-.302**	.298**	-	.179	-
7. ACH	.063	.392***	-.042	.148	-.044	-.153	1	-.247*	-	.098	-
8. FIB	-.344**	-.437***	-.094	-.018	.053	.193	-.233*	1	-	.129	-
9. FOT ^c	-.139	-.355***	-.074	.193	.073	.220*	-.174	.009	1	-	-
10. Stress	-.152	-.199	-.027	.117	.248*	.180	-.259*	.135	.301**	1	-
11. RE ^c	.024	.054	-.029	.069	-.013	-.043	-.002	.052	-.104	.011	1
12. TE ^c	-.123	-.125	.046	-.137	-.176	.100	.012	.147	.069	.060	-.147
13. FE ^c	.157	.122	.065	.032	.001	.070	.085	-.144	.051	.027	.262*
14. PSS ^c	-.070	-.220*	-.068	.118	.287**	.183	-.376***	.255*	.173	.618***	.114
15. INT	-.046	-.166	.014	-.018	.245*	.179	-.422***	.224*	.273**	.764***	.066
16. WB ^c	.056	.210*	.072	-.052	-.151	.132	.391***	-.154	-.227*	-.635***	-.088

Variable	12	13	14	15	16
1. FI	-	-	-	-.181	-
2. SG	-	-	-	-.327**	-
3. SR	-	-	-	-.003	-
4. ENG	-	-	-	.177	-
5. NUR	-	-	-	.063	-
6. MOR	-	-	-	.156	-
7. ACH	-	-	-	.128	-
8. FIB ^b	-	-	-	.080	-
9. FOT ^c	-	-	-	-	-
10. Stress	-	-	-	.682***	-
11. RE ^c	-	-	-	-	-
12. TE ^c	1	-	-	-	-
13. FE ^c	-.182	1	-	-	-
14. PSS ^c	-.040	-.026	1	-	-
15. INT	-.019	-.034	.672***	1	-
16. WB ^c	-.063	.004	-.664***	-.775***	1

Note. Correlations for Time 1 are above the main diagonal and for Time 2 are below the main diagonal.

FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement; FIB = Feeling “In-between;” FOT = Feeling “Off Time;” Stress = Stress/Physiological Arousal; RE = Residential Expectations; TE = Time Expectations; FE = Financial Expectations; PSS = External Stress; INT = Internalizing Symptoms; WB = Well-being.

^aFIB at Time 1.

^bFIB at Time 2.

^cOnly collected at Time 2.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.

Correlations among Independent Variables for Time 1 and Dependent Variables for Time

2.

	T2 Internalizing Symptoms	T2 Well-being
T1 Financial Independence	.022	-.087
T1 Self Governance	-.022	-.073
T1 Separate Residence	-.041	.032
T1 Engulfment Anxiety	.134	-.114
T1 Nurturance Seeking	.151	-.138
T1 Moratorium	.158	-.006
T1 Achievement	-.068	.029

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

(i.e., financial independence, separate residence, and self governance subscales) were entered simultaneously into the regressions analysis to predict internalizing symptoms. In a separate regression analysis, the two separation-individuation subscales (i.e., engulfment anxiety and nurturance seeking) subscales were included to predict internalizing symptoms. Finally, the two subscales of identity formation (i.e., achieved and moratorium subscales) were used into a regression analysis to predict internalizing symptoms. In the same fashion, the three psychosocial developmental constructs were tested as predictors of well-being. These relations were conducted for cross-sectional and longitudinal analyses.

Autonomy. Cross-sectional analyses showed that none of the subscales of autonomy (i.e., financial independence, self governance, and separate residence) at Time 2 were significantly predictive of internalizing symptoms or well-being at Time 2. Similarly, longitudinal regressions showed that none of the three autonomy subscales at Time 1 were predictive of outcomes at Time 2.

Separation-individuation. As predicted, cross-sectional analyses demonstrated that nurturance seeking at Time 2 was significantly predictive of internalizing symptoms at Time 2. Specifically, higher levels of nurturance seeking predicted higher levels of internalizing symptoms ($\beta = .252, p = .015$). In contrast, engulfment anxiety at Time 2 was not predictive of internalizing symptoms at Time 2. Neither of the Time 2 separation-individuation subscales was predictive of Time 2 well-being. Longitudinal analyses did not produce significant results between the subscales of separation-individuation at Time 1 and outcomes variables at Time 2.

Identity formation. As predicted, in cross-sectional analyses, identity achievement at Time 2 was significantly predictive of internalizing symptoms and well-being at Time 2. Higher levels of identity achievement were predictive of lower levels of internalizing symptoms ($\beta = -.404, p = .000$) and higher levels of well-being ($\beta = .379, p = .000$) at Time 2. Longitudinal analyses did not produce significant results between subscales of identity formation at Time 1 and outcomes at Time 2.

Hypothesis 2

It was hypothesized that the relation between the three developmental tasks (i.e., autonomy development, separation-individuation, and identity formation) at Time 1 and Time 2 and the two outcome variables (i.e., internalizing and well-being) at Time 2 would be mediated by three Time 2 variables. Specifically, it was posited that feeling “in-between” (Time 2), feeling “off-time” (Time 2), and physiological arousal due to stress (Time 2) would mediate the relation between the predictors (Time 1 and Time 2) and outcome variables (Time 2) (Figures 2, 3, and 4). The following analyses were conducted as recommended by Baron and Kenny (1986). First, to determine whether the independent variables affected the mediator, the mediators were regressed onto the independent variables. Second, the dependent variable was regressed onto the independent variables to establish whether the independent variables influenced the dependent variables. Third, the dependent variable was regressed onto the mediators to determine whether the mediators affected the dependent variable. If these conditions were met in the predicted directions and the effect of the independent variable on the dependent variable is less in the third equation than in the second equation, mediation

was said to exist.

Because the second set of analyses outlined by Baron and Kenny (1986) were conducted when testing the first hypothesis, only those independent variables that significantly predicted the dependent variables were tested for mediation. As such, only cross-sectional mediation was tested for nurturance seeking as a predictor of internalizing symptoms, and for identity achievement as a predictor of internalizing symptoms and well-being. In a reduced model with nurturance seeking as the only predictor of internalizing symptoms, nurturance seeking was significantly predictive of internalizing symptoms ($\beta = .245, p = .016$). Reduced models were similarly run for identity achievement and internalizing symptoms and for identity achievement and well-being. In these reduced models, identity achievement was significantly predictive of internalizing symptoms ($\beta = -.422, p = .000$) and well-being ($\beta = .391, p = .000$).

Feeling “in-between” as a mediator. Analyses were conducted to determine whether feeling “in-between” mediated the relations between nurturance seeking and internalizing symptoms. Nurturance seeking did not significantly predict feeling “in-between;” therefore, the first condition was not met and feeling “in-between” did not mediate the relation between nurturance seeking and internalizing symptoms. Analyses were conducted to determine whether feeling “in-between” mediated the relations between identity achievement and internalizing symptoms. In the regression of identity achievement and feeling “in-between,” identity achievement significantly predicted feeling “in-between” ($\beta = -.233, p = .022$). Internalizing symptoms and well-being were then regressed onto feeling “in-between.” Feeling “in-between” only predicted

internalizing symptoms ($\beta = .224, p = .028$). As the three conditions for mediation were met, the Sobel Test was conducted to determine if the effect of the identity achievement on internalizing symptoms was significantly less in the third equation than in the second equation. This was not the case ($z = -1.598, p = .110$); therefore, feeling “in-between” did not mediate the relation between achievement and internalizing symptoms.

Feeling “off time” as a mediator. Analyses were conducted to determine whether feeling “off-time” mediated the relations between nurturance seeking and internalizing symptoms. The path between nurturance seeking and feeling “off time” was not significant; thus, feeling “off time” did not mediate the relation between nurturance seeking and internalizing symptoms. Analyses were then conducted to determine whether feeling “off-time” mediated the relations between identity achievement and internalizing symptoms or well-being, but did not yield significant results.

Physiological arousal due to stress as a mediator. Analyses were conducted to determine whether physiological arousal due to stress mediated the relations between nurturance seeking and internalizing symptoms. The path between nurturance seeking and physiological arousal due to stress ($\beta = .248, p = .015$) was significant. To determine whether the third condition was met, internalizing symptoms was regressed onto physiological arousal due to stress. Stress significantly predicted internalizing symptoms ($\beta = .764, p = .000$). Finally, when internalizing symptoms were regressed onto stress while controlling for nurturance seeking, the path between nurturance seeking and internalizing symptoms ($\beta = .060, p = .387$) was no longer significant. The results of the

Sobel Test indicated that the effect of the nurturance on internalizing symptoms was less in the third equation than in the second equation ($z = 2.43, p = .015$) (Figure 5).

Therefore, physiological arousal fully mediated the relation between nurturance seeking and internalizing symptoms.

Analyses were performed to determine whether physiological arousal due to stress mediated the relations between identity achievement and internalizing symptoms or well-being. Identity achievement significantly predicted physiological arousal due to stress ($\beta = -.259, p = .011$). Next, internalizing symptoms and well-being were regressed onto physiological arousal. Stress significantly predicted internalizing symptoms ($\beta = .764, p = .000$) and well-being ($\beta = -.635, p = .000$). When internalizing symptoms and well-being were regressed onto stress while controlling for identity achievement, the path between identity achievement and internalizing symptoms ($\beta = -.240, p = .000$) and between identity achievement and well-being ($\beta = .255, p = .002$) remained significant. The Sobel Test was significant for both internalizing symptoms ($z = -2.520, p = .012$) (Figure 6) and well-being ($z = 2.439, p = .015$), indicating that physiological arousal due to stress partially mediated the relations between identity achievement and internalizing symptoms and between identity achievement and well-being (Figure 7). It is of note that while feeling “in-between” and feeling “off time” did not mediate the relations among the developmental variables and internalizing symptoms or well-being, they did significantly predict both outcome variables. Specifically, feeling “in-between” (Time 2) ($\beta = .224, p = .028$) and feeling “off time” (Time 2) significantly predicted higher levels of internalizing symptoms (Time 2) ($\beta = .273, p = .007$). Additionally, feeling “off time”

Figure 5. Stress as a mediator of nurturance seeking Time 2 and internalizing symptoms Time 2.

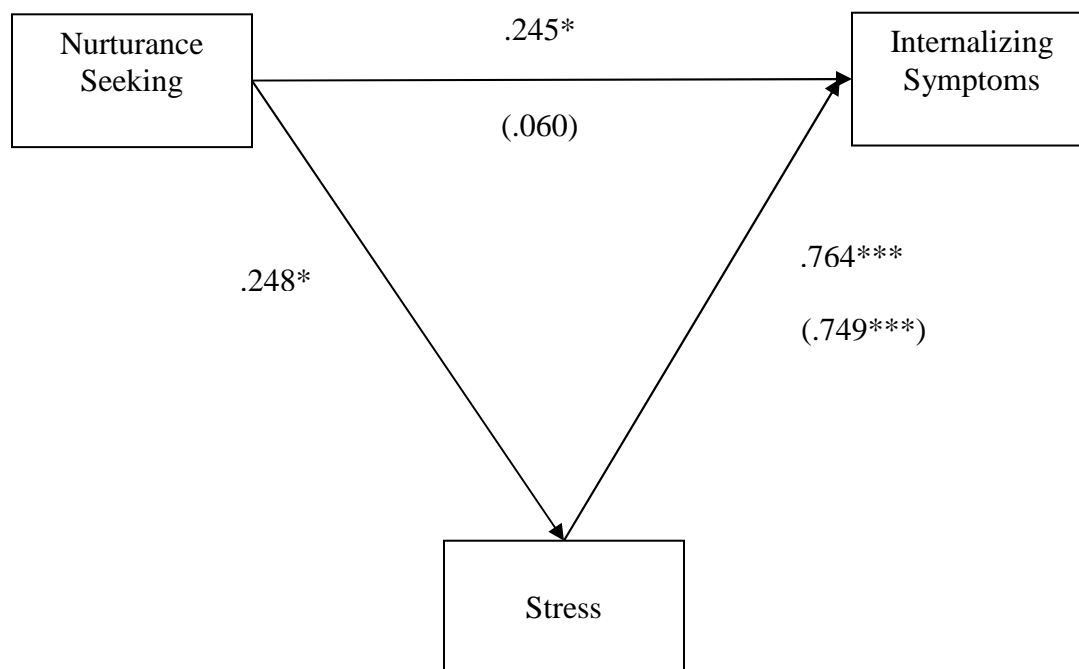


Figure 6. Stress as a mediator of identity achievement Time 2 and internalizing symptoms Time 2.

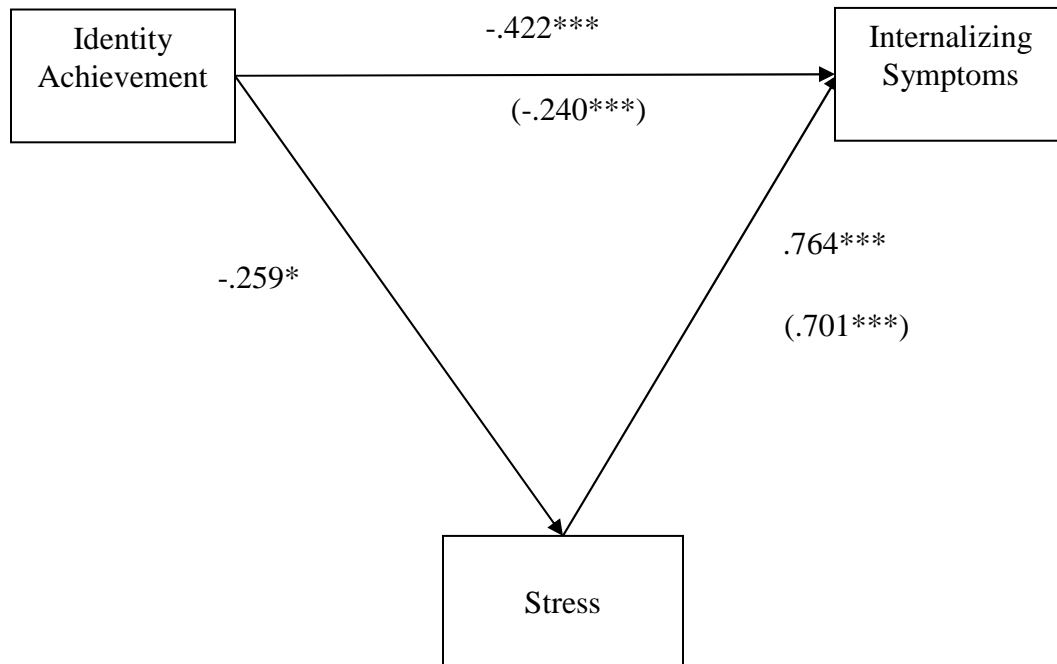
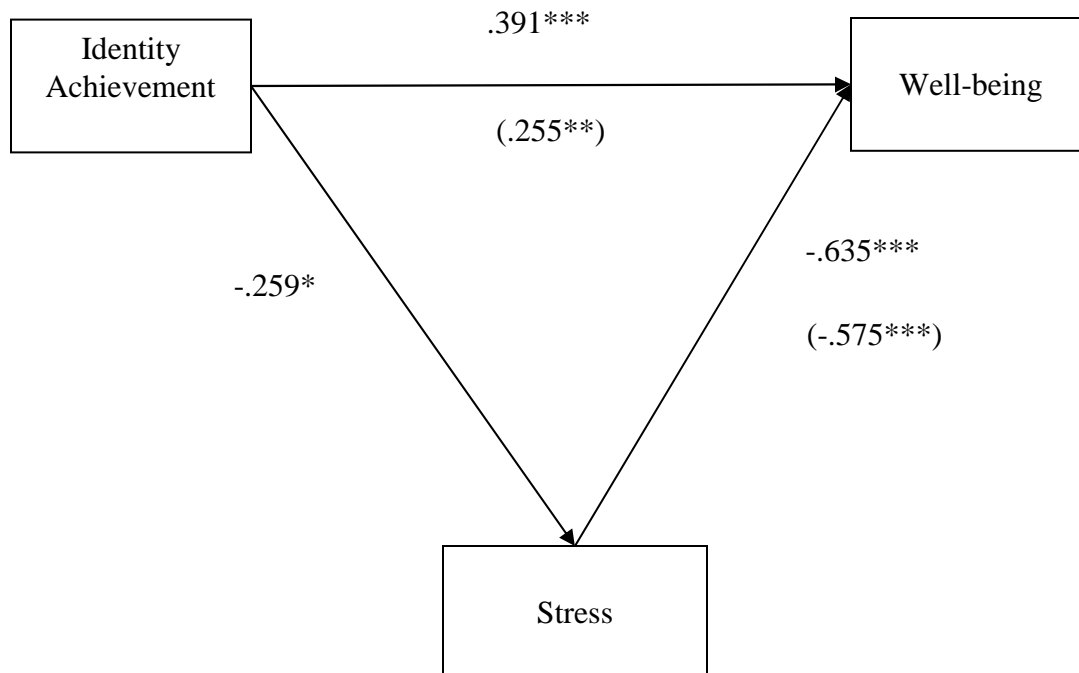


Figure 7. Stress as a mediator of identity achievement Time 2 and well-being Time 2.



(Time 2) significantly predicted lower levels of well-being ($\beta = -.227, p = .030$).

In summary, while feeling “in-between,” feeling “off time,” and stress were hypothesized to mediate the relations between the three psychosocial developmental constructs and the two outcome variables, only stress emerged as a significant mediator. Specifically, stress mediated the relation between nurturance seeking, a subscale of separation-individuation, and internalizing symptoms. Stress also mediated the relation between identity achievement and internalizing symptoms, as well as between identity achievement and well-being.

Hypothesis 3

It was hypothesized that the relation between the three psychosocial developmental predictors (i.e., autonomy development, separation-individuation, and identity formation) and the two adjustment outcome variables (i.e., internalizing symptoms and well-being) would be moderated by the four Time 2 variables. Specifically, it was predicted that the ability to meet residential expectations (Time 2), ability to meet expectations relative to how the individual would spend his or her time (Time 2), the ability to meet financial expectations (Time 2), and perceptions of external stress (Time 2) would moderate the relations between predictors (Time 1 and Time 2) and outcome variables (Time 2). That is, at high levels of stress (Time 2) emerging adults who experience lower scores on measures of autonomy development and healthy identity formation (Time 1 and Time 2), as well as higher scores on measures of separation-individuation (Time 1 and Time 2), would experience higher levels of internalizing symptoms (Time 2) and lower levels of well-being (Time 2). Additionally, not meeting expectations with regard to financial status, residential status, and how one’s time would

be spent (Time 2) would be associated with higher levels of internalizing symptoms (Time 2) and lower levels of well-being (Time 2) for emerging adults who experience lower scores on measures of autonomy and healthy development (Time 1 and Time 2), as well as higher scores on measures of separation-individuation (Time 1 and Time 2).

Before conducting the regression analyses, the psychosocial developmental variables and external stress were centered by subtracting the mean from each participant's score before conducting the regression analyses. Additionally, each of the meeting expectations variables was dummy coded with (0) did not meet expectations or (1) met expectations (Aiken & West, 1991; Holmbeck, 2002). Product terms were then created for each of the subscales of the three psychosocial developmental constructs with each of the four moderating variables (i.e., external stress, ability to meet financial expectations, ability to meet residential expectations, and ability to meet expectations about how they would spend their time).

A series of hierarchical regression analyses was performed for each of the Time 2 outcome variables (i.e., internalizing symptoms and well-being). For both cross-sectional and longitudinal analyses, separate regression analyses were run for each of the three psychosocial developmental constructs with each of the four moderators on each of the two outcome variables, for a total of 48 analyses. That is, for each construct, the subscales of the psychosocial developmental construct being tested and one of the moderators were entered into step one, and their respective two-way interaction terms (i.e., the interaction of each individual subscale and the moderator) were entered into step two. Separate regression analyses were conducted for each of the two outcome variables of adjustment. For example, when testing the interaction of autonomy development and

external stress on internalizing symptoms, the three autonomy subscales (i.e., self governance, separate residence, and financial independence) and the moderator (i.e., external stress) were entered in the first step. Then, the interaction terms of self governance and external stress, separate residence and external stress, and financial independence and external stress were entered into the second step. Internalizing symptoms was entered as the dependent variable. In the longitudinal analyses with Time 2 internalizing symptoms as the outcome variable, it was necessary to control for Time 1 internalizing symptoms. Consequently, Time 1 internalizing symptoms were entered in step one. The subscales of the Time 1 psychosocial developmental construct being tested and the moderating variable were then entered in the second step. The two-way interaction terms between each of the subscales and the moderator were entered in third step. Because well-being was not measured at Time 1, it was not possible to control for well-being during the first data collection wave; therefore, the analyses were conducted in the same manner as the cross-sectional analyses, with the subscales of each psychosocial developmental construct and the moderator entered in step one and their respective two-way interaction terms entered in step two.

When an interaction term was significant, a reduced model was conducted that included the main effects and the interaction term (Holmbeck, 2002). If this was significant, post-hoc analyses were conducted to determine the simple effects that contributed to the significant interaction terms. Slopes for the different levels of the moderating variable and their respective significance were then generated (Aiken & West, 1991; Holmbeck, 2002).

First, the interaction effects of external stress with autonomy development, separation-individuation, and identity formation subscales on internalizing symptoms and well-being were examined cross-sectionally and longitudinally. These analyses were followed by cross-sectional and longitudinal analyses that examined the interaction effects of the ability to meet expectations with autonomy development, separation-individuation, and identity formation on internalizing symptoms and well-being. The results of the analyses with external stress as a moderator are presented first, followed by the results of the analyses with ability to meet expectations.

Interaction between external stress and autonomy subscales. There were no significant cross-sectional interaction effects between external stress (Time 2) and autonomy development subscales (Time 2) on internalizing symptoms (Time 2) (Table 4). In contrast, a significant cross-sectional interaction emerged for self-governance (Time 2) and external stress (Time 2) on well-being (Time 2) ($\beta = -.261, p = .035$) (Table 4). Follow-up analyses were conducted to probe the interaction effects. Specifically, a reduced model was run separately for self governance and external stress. In this reduced model, the interaction effect of self governance and external stress on well-being remained significant ($\beta = -.161, p = .049$). Additional analyses were conducted to probe this relation further. Regression lines were plotted for high levels and low levels of external stress, and then the slope of each regression line was tested for significance (Holmbeck, 1997). The relation between self governance and well-being was in the predicted direction at high levels of stress. That is, at high levels of stress, low levels of self governance were associated with lower levels of well-being; however, the slope of

Table 4.

Regression summary table: Interactions between Psychosocial Developmental Tasks T2 and External Stress (PSS) T2 on Internalizing Symptoms T2 and Well-Being T2.

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Autonomy					Autonomy				
Main Effects	.457***				Main Effects	.447***			
PSS T2		.800	.095	.666***	PSS T2		-1.067	.135	-.647***
FIT2		.005	.120	.004	FIT2		-.030	.171	-.016
SG T2		-.085	.156	-.053	SG T2		.195	.220	.087
SR T2		.121	.130	.079	SR T2		-.007	.184	-.003
Two-way Interaction	.484***				Two-way Interaction	.491***			
PSS T2 X FIT2		-.022	.020	-.117	PSS T2 X FIT2		.042	.028	.166
PSS T2 X SG T2		.025	.026	.108	PSS T2 X SG T2		-.084	.037	-.261*
PSS T2 X SR T2		.039	.021	.154†	PSS T2 X SR T2		-.035	.029	-.102
Separation Individuation					Separation Individuation				
Main Effects	.465***				Main Effects	.446***			
PSS T2		.799	.096	.665***	PSS T2		-1.138	.139	-.690***
ENG T2		-.125	.092	-.105	ENG T2		.093	.141	.053
NUR T2		.120	.141	.068	NUR T2		.144	.208	.058
Two-way Interaction	.493***				Two-way Interaction	.454***			
PSS T2 X ENG T2		-.014	.013	-.082	PSS T2 X ENG T2		.022	.021	.093
PSS T2 X NUR T2		.041	.021	.151†	PSS T2 X NUR T2		-.008	.030	-.021

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Identity Development					Identity Development				
Main Effects	.487***				Main Effects	.466***			
PSS T2		.711	.098	.592***	PSS T2		-.997	.139	-.604***
MOR T2		.030	.055	.041	MOR T2		.020	.080	.020
ACH T2		-.149	.063	-.193*	ACH T2		.186	.090	.174*
Two-way Interaction	.578***				Two-way Interaction	.468***			
PSS T2 X MOR T2		.012	.007	.119	PSS T2 X MOR T2		-.004	.011	-.031
PSS T2 X ACH T2		-.029	.007	-.277***	PSS T2 X ACH T2		.004	.012	.025

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement; PSS = External Stress.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

the line was not significant ($t = -.508, p = .613$). As such, the hypothesis was not supported. Analyses were also conducted to determine the impact of low levels of stress. The slope of the line approached significance ($t = 1.899, p = .061$); at low levels of stress, higher levels of self governance are associated with higher levels of well-being. No significant longitudinal main or interaction effects were found for autonomy development (Time 1) and external stress (Time 2) on internalizing symptoms (Time 2) or well-being (Time 2) (Table 5).

Interaction between external stress and separation-individuation. There were no significant cross-sectional main or interaction effects found for external stress (Time 2) and separation-individuation (Time 2) on internalizing symptoms (Time 2) or well-being (Time 2) (Table 4). Similarly, there were no significant longitudinal main or interaction effects found for external stress (Time 2) and separation-individuation (Time 1) on internalizing symptoms (Time 2) (Table 5). This was also true of the regression of external stress (Time 2) and separation-individuation (Time 1) on well-being (Time 2) (Table 5).

Interaction between external stress and identity development subscales. A significant cross-sectional interaction effect was found for external stress (Time 2) and identity achievement (Time 2) on internalizing symptoms (Time 2) ($\beta = -.277, p = .000$) (Table 4). In the reduced model, a significant interaction effect remained ($\beta = -.281, p = .000$). When the regression lines were plotted, the slope for the high external stress line was significant ($t = -5.68, p = .000$) (Figure 8). At high levels of external stress (Time 2), individuals with low levels of identity achievement (Time 2) exhibited higher levels of

Table 5.

Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and External Stress (PSS) T2 on Internalizing Symptoms T2 and Well-Being T2.

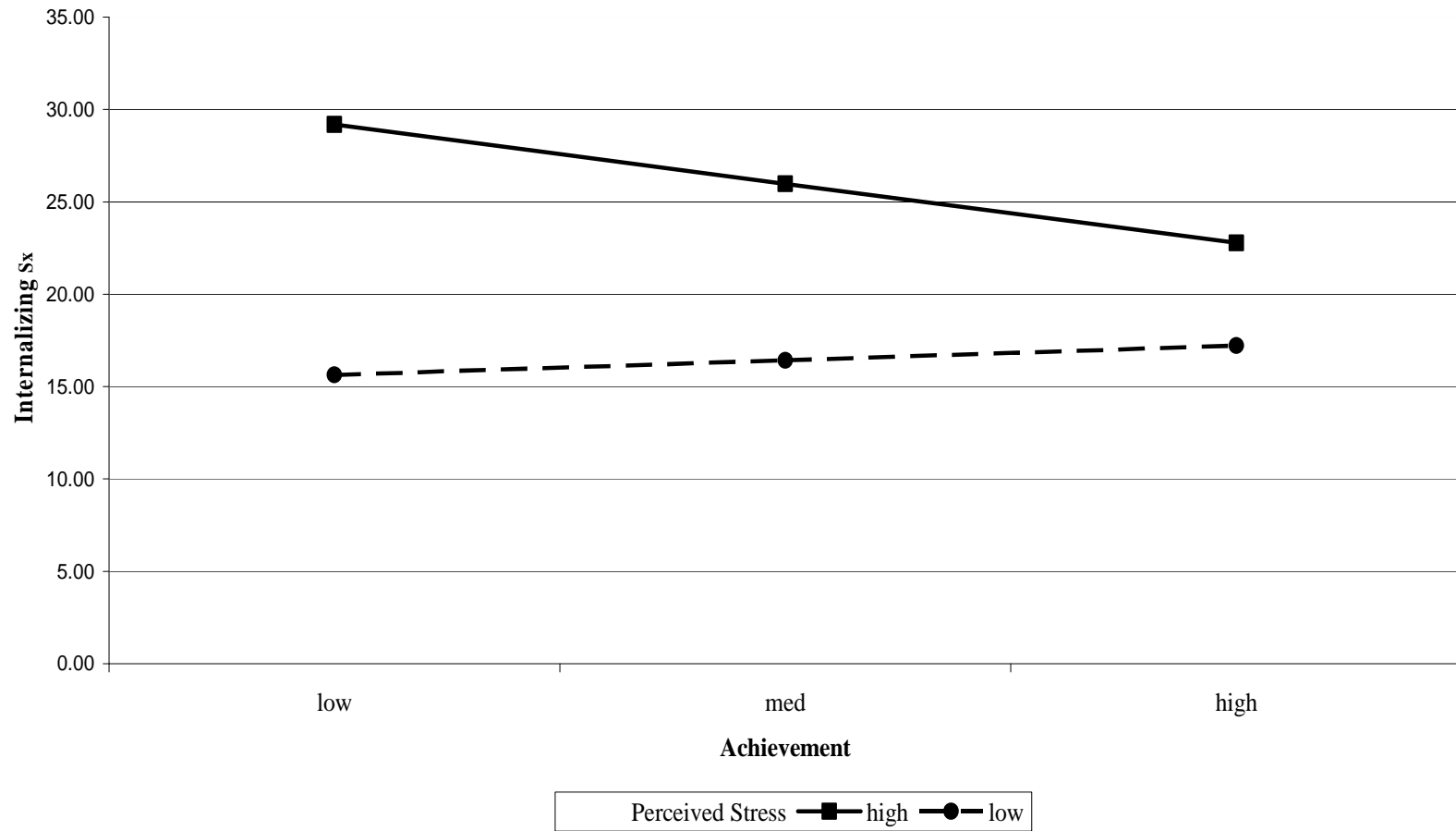
	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Autonomy					Autonomy				
Internalizing Symptoms T1	.160***								
Main Effects	.553***				Main Effects	.455***			
Internalizing Symptoms T1		.360	.081	.338***					
PSS T2		.744	.086	.619***	PSS T2		-1.101	.131	-.668***
FIT1		.014	.105	.012	FIT1		-.027	.162	-.016
SG T1		.190	.136	.131	SG T1		-.189	.200	-.094
SR T1		-.180	.119	-.117	SR T1		.234	.182	.110
Two-way Interactions	.569***				Two-way Interactions	.497***			
PSS T2 X FIT1		-.002	.016	-.012	PSS T2 X FIT1		.028	.024	.115
PSS T2 X SG T1		.015	.020	.068	PSS T2 X SG T1		-.058	.030	-.191†
PSS T2 X SR T1		.025	.020	.097	PSS T2 X SR T1		-.044	.030	-.122
Separation Individuation					Separation Individuation				
Internalizing Symptoms T1	.400***								
Main Effects	.733***				Main Effects	.444***			

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Internalizing Symptoms									
T1		.315	.078	.296***					
PSS T2		.765	.091	.637***	PSS T2		-1.123	.139	-.681***
ENG T1		-.023	.106	-.016	ENG T1		-.014	.162	-.007
NUR T1		-.087	.137	-.047	NUR T1		.160	.214	.062
Two-way Interactions	.739***				Two-way Interactions	.462***			
PSS T2 X ENG T1		-.007	.016	-.031	PSS T2 X ENG T1		.041	.024	.136
PSS T2 X NUR T1		.025	.021	.088	PSS T2 X NUR T1		.005	.031	.012
Identity Development					Identity Development				
Internalizing Symptoms	.160***								
T1									
Main Effects	.544***				Main Effects	.471***			
Internalizing Symptoms									
T1		.323	.077	.303***					
PSS T2		.759	.088	.632***	PSS T2		-1.166	.132	-.707***
MOR T1		-.039	.056	-.055	MOR T1		.183	.083	.185*
ACH T1		-.068	.054	-.095	ACH T1		.096	.081	.097
Two-way Interactions	.545***				Two-way Interactions	.476***			
PSS T2 X MOR T1		.004	.007	.044	PSS T2 X MOR T1		.002	.011	.012
PSS T2 X ACH T1		.001	.007	.008	PSS T2 X ACH T1		-.009	.011	-.066

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement; PSS = External Stress.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 8. Moderation of identity achievement Time 2 and external stress Time 2 on internalizing symptoms Time 2.



internalizing symptoms (Time 2), which supports the hypothesis. In contrast, the slope for low levels of external stress was not significant. There were also significant main effects between identity achievement (Time 2) and internalizing symptoms (Time 2) ($\beta = -.198, p = .016$), and between identity achievement (Time 2) and well-being (Time 2) ($\beta = .174, p = .042$). More specifically, higher levels of identity achievement (Time 2) were significantly associated with lower levels of internalizing symptoms (Time 2) and higher levels of well-being (Time 2) (Table 4). There were no significant main or interaction effects found in the longitudinal regression of external stress (Time 2) and identity development (Time 1) on internalizing symptoms (Time 2) (Table 5). A significant longitudinal main effect was found for the path between moratorium (Time 1) and well-being (Time 2) ($\beta = .185, p = .031$) (Table 5). In other words, higher levels of moratorium (Time 1) were associated with higher levels of well-being (Time 2) regardless of stress level (Time 2).

Interaction between meeting residential expectations and autonomy development subscales. Significant cross-sectional main and interaction effects were not found between autonomy development (Time 2) and meeting residential expectations (Time 2) on internalizing symptoms (Time 2) or on well-being (Time 2) (Table 6). There were also no significant longitudinal main or interaction effects found for autonomy development (Time 1) and meeting residential expectations (Time 2) in the prediction of internalizing symptoms (Time 2) or well-being (Time 2) (Table 7).

Interaction between meeting residential expectations and separation-individuation subscales. A significant cross-sectional main effect was found for the

Table 6.

Regression summary table: Interactions between Psychosocial Developmental Tasks T2 and Residential Expectations (RE) T2 on Internalizing Symptoms T2 and Well-Being T2.

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Autonomy					Autonomy				
Main Effects	.042				Main Effects	.057			
RE T2		1.310	1.688	0.080	RE T2		-2.425	2.403	-.106
FIT2		0.053	0.160	0.040	FIT2		-.109	.224	-.059
SG T2		-0.369	0.205	-	SG T2		.563	.284	.253†
SR T2		0.151	0.174	0.099	SR T2		-.044	.242	-.021
Two-way Interaction	.073				Two-way Interaction	.089			
RE T2 X FIT2		0.203	0.329	0.115	RE T2 X FIT2		-.067	.465	-.028
RE T2 X SG T2		0.093	0.417	0.037	RE T2 X SG T2		-.549	.577	-.159
RE T2 X SR T2		-0.625	0.376	-0.326	RE T2 X SR T2		.877	.527	.336
Separation Individuation					Separation Individuation				
Main Effects	.070†				Main Effects	.033			
RE T2		1.198	1.653	.073	RE T2		-1.775	2.430	-.078
ENG T2		-.067	.122	-.056	ENG T2		-.055	.187	-.032
NUR T2		.458	.181	.258*	NUR T2		-.384	.264	-.154
Two-way Interaction	.121*				Two-way Interaction	.035			
RE T2 X ENG T2		.319	.257	.221	RE T2 X ENG T2		-.087	.470	-.044
RE T2 X NUR T2		.647	.382	.301†	RE T2 X NUR T2		-.241	.601	-.082

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Identity Development					Identity Development				
Main Effects	.201***				Main Effects	.175**			
RE T2		1.150	1.530	.070	RE T2		-2.443	2.223	-.107
MOR T2		.089	.069	.122	MOR T2		-.067	.099	-.067
ACH T2		-.317	.073	-.409***	ACH T2		.421	.106	.392***
Two-way Interaction	.204**				Two-way Interaction	.180**			
RE T2 X MOR T2		.047	.144	.051	RE T2 X MOR T2		.064	.209	.051
RE T2 X ACH T2		.066	.154	.068	RE T2 X ACH T2		-.132	.227	-.099

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement; RE = Residential Expectations.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 7.

Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and Residential Expectations (RE) T2 on Internalizing Symptoms T2 and Well-Being T2.

	Step R ²	B	SE B	β		Step R ²	B	SE B	B
Internalizing Symptoms					Well-Being				
Autonomy					Autonomy				
Internalizing Symptoms T1	.158***				Main Effects	.017			
Main Effects	.183**								
Internalizing Symptoms T1		0.483	0.110	0.452***	RE T2		-1.673	2.477	-.073
RE T2		0.251	1.599	0.015	FIT1		-.108	.219	-.064
FIT1		0.077	0.144	0.063	SG T1		-.104	.269	-.051
SG T1		0.191	0.185	0.130	SR T1		.142	.248	.067
SR T1		-0.163	0.165	-0.106	Two-way Interactions	.041			
Two-way Interactions	.199*				RE T2 X FIT1		.421	.464	.192
RE T2 X FIT1		-0.219	0.305	-0.136	RE T2 X SG T1		-.837	.594	-.332
RE T2 X SG T1		0.260	0.390	0.140	RE T2 X SR T1		.054	.529	.020
RE T2 X SR T1		-0.325	0.347	-0.165					
Separation Individuation					Separation Individuation				
Internalizing Symptoms T1	.158***				Main Effects	.041			
Main Effects	.181**								
Internalizing Symptoms T1		.399	.104	.374***	RE T2		-1.999	2.408	-.088
RE T2		.767	1.571	.047					

	Step R ²	B	SE B	β		Step R ²	B	SE B	B
Internalizing Symptoms					Well-Being				
ENG T1		.095	.140	.066	ENG T1		-.226	.212	-.113
NUR T1		.244	.177	.133	NUR T1		-.381	.270	-.149
Two-way Interactions	.201**				Two-way Interactions	.047			
RE T2 X ENG T1		.402	.290	.219	RE T2 X ENG T1		.245	.459	.097
RE T2 X NUR T1		.258	.372	.111	RE T2 X NUR T1		.312	.594	.099
Identity Development					Identity Development				
Internalizing Symptoms T1	.158***				Main Effects	.010			
Main Effects	.172**				RE T2		-2.097	2.448	-.092
Internalizing Symptoms T1		.411	.104	.385***	MOR T1		.019	.112	.019
RE T2		.573	1.571	.035	ACH T1		.051	.113	.051
MOR T1		.055	.074	.077	Two-way Interactions	.062			
ACH T1		-.044	.074	-.061	RE T2 X MOR T1		-.061	.243	-.051
Two-way Interactions	.222**				RE T2 X ACH T1				-
RE T2 X MOR T1		.224	.155	.259			-.476	.224	.350
RE T2 X ACH T1		.321	.144	.320*					*

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement; RE = Residential Expectations.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

regression analysis of nurturance seeking (Time 2) in the prediction of internalizing symptoms (Time 2) ($\beta = .258, p = .013$) (Table 6). Higher levels of nurturance seeking were significantly predictive of higher levels of internalizing symptoms regardless of whether or not individuals had met their residential expectations. There were no significant main or interaction effects found for the cross-sectional regressions of residential expectations (Time 2) and separation-individuation (Time 2) on well-being (Time 2) (Table 6). Similarly, significant longitudinal main and interaction effects were not found for the regressions of separation-individuation (Time 1) and meeting residential expectations (Time 2) in the prediction of internalizing symptoms (Time 2) or well-being (Time 2) (Table 7).

Interaction between meeting residential expectations and identity formation subscales. For the regression analysis of identity formation (Time 2) in the prediction of internalizing symptoms (Time 2), a significant cross-sectional main effect was found for identity achievement (Time 2) ($\beta = -.409, p = .000$) (Table 6). There was also a significant main effect in the regression of identity achievement (Time 2) on well-being (Time 2) ($\beta = .392, p = .000$) (Table 6). Higher levels of identity achievement were, therefore, predictive of lower levels of internalizing symptoms and higher levels of well-being regardless of whether emerging adults met their residential expectations. In longitudinal analyses, a significant interaction effect emerged between identity achievement (Time 1) and meeting residential expectations (Time 2) in the prediction of internalizing symptoms (Time 2) ($\beta = .320, p = .028$) and well-being (Time 2) ($\beta = -.350, p = .036$) (Table 7). Regression analyses were run for each of the reduced models.

Although the interaction between identity achievement and meeting residential expectations on well-being remained significant ($\beta = -.337, p = .031$), the interaction between identity achievement and meeting residential expectations in the prediction of internalizing symptoms disappeared. When regression lines were plotted for the interaction of identity achievement and meeting residential expectations on well-being, the slope for not meeting residential expectations (Time 2) was not significant, but approached significance ($t = 1.904, p = .060$) (Figure 9); however, the graph indicates that, consistent with hypotheses, at low levels of achievement, individuals who did not meet expectations experienced lower levels of well-being. The slope for meeting residential expectations was also tested, but was not significant ($t = -1.160, p = .249$).

Interactions between meeting time expectations and autonomy development subscales. No significant cross-sectional main or interaction effects were found between autonomy (Time 2) and meeting expectations for how individuals would spend their time (Time 2) on internalizing symptoms (Time 2) or well-being (Time 2) (Table 8). Similarly, there were no significant longitudinal main or interaction effects between any of the autonomy subscales (Time 1) and meeting expectations for spending time (Time 2) in the prediction of internalizing symptoms (Time 2) or well-being (Time 2) (Table 9).

Interaction between meeting time expectations and separation-individuation subscales. In the cross-sectional analyses, there was no significant interaction effect between time expectations and nurturance seeking; however, a cross-sectional main effect was found in the regression analysis of nurturance seeking (Time 2) in the prediction of internalizing symptoms (Time 2) ($\beta = .266, p = .013$) (Table 8). Higher

Figure 9. Moderation of identity achievement Time 2 and residential expectations Time 2 on well-being Time 2.

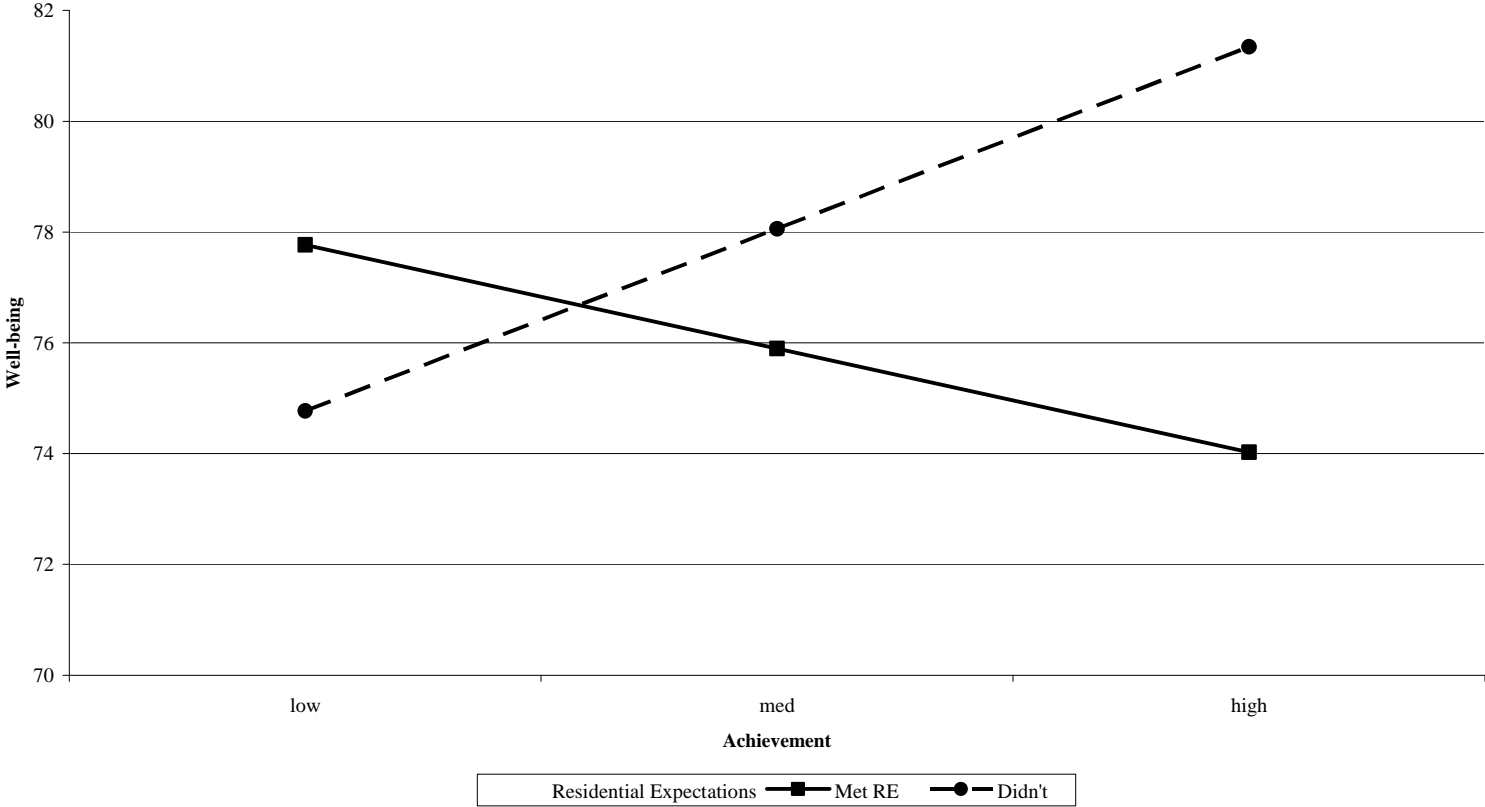


Table 8.

Regression summary table: Interactions between Psychosocial Developmental Tasks T2 and Time Expectations (TE) T2 on Internalizing Symptoms T2 and Well-Being T2.

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Autonomy					Autonomy				
Main Effects	.037				Main Effects	.049			
TE T2		-.750	1.860	-.043	TE T2		-1.183	2.589	-.049
FIT2		.096	.167	.070	FIT2		-.213	.234	-.112
SG T2		-.372	.207	-.229 [†]	SG T2		.533	.286	.239 [†]
SR T2		.146	.178	.094	SR T2		.025	.248	.012
Two-way Interaction	.063				Two-way Interaction	.090			
TE T2 X FI T2		.420	.393	.148	TE T2 X FIT2		-.669	.539	-.174
TE T2 X SG T2		-.282	.433	-.123	TE T2 X SG T2		.656	.594	.212
TE T2 X SR T2		.436	.418	.151	TE T2 X SR T2		-.801	.573	-.204
Separation					Separation				
Individuation					Individuation				
Main Effects	.069 [†]				Main Effects	.034			
TE T2		.363	1.830	.021	TE T2		-2.332	2.603	-.098
ENG T2		-.064	.123	-.054	ENG T2		-.083	.186	-.048
NUR T2		.477	.188	.266 [*]	NUR T2		-.420	.273	-.167
Two-way Interaction	.077				Two-way Interaction	.040			
TE T2 X ENG T2		-.056	.360	-.018	TE T2 X ENG T2		-.295	.515	-.069
TE T2 X NUR T2		-.394	.456	-.104	TE T2 X NUR T2		-.295	.650	-.058

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Identity Development					Identity Development				
Main Effects	.190***				Main Effects	.163**			
TE T2		-.438	1.677	-.025	TE T2		-1.709	2.389	-.072
MOR T2		.081	.071	.112	MOR T2		-.040	.101	-.040
ACH T2		-.312	.075	-.403***	ACH T2		.417	.109	.389** *
Two-way Interaction	.207**				Two-way Interaction	.181**			
TE T2 X MOR T2		.213	.181	.131	TE T2 X MOR T2		-.298	.256	-.136
TE T2 X ACH T2		.159	.172	.108	TE T2 X ACH T2		-.234	.244	-.117

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement; TE = Time Expectations.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 9.

Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and Time Expectations (TE) T2 on Internalizing Symptoms T2 and Well-Being T2.

	Step R ²	B	SE B	β		Step R ²	B	SE B	B
Internalizing Symptoms					Well-Being				
Autonomy					Autonomy				
Internalizing Symptoms T1	.154***				Main Effects	.027			
Main Effects	.182**								
Internalizing Symptoms T1		.475	.110	.447***	Spending Time T2		-1.898	2.598	-.079
Spending Time T2		-.772	1.716	-.044	FIT1		-.193	.222	-.116
FIT1		.103	.147	.085	SG T1		-.111	.271	-.056
SG T1		.166	.188	.115	SR T1		.221	.248	.105
SR T1		-.167	.165	-.109	Two-way Interactions	.066			
Two-way Interactions	.213**				TE T2 X FIT1		-.451	.502	-.153
TE T2 X FIT1		.596	.334	.275†	TE T2 X SG T1		1.189	.656	.328†
TE T2 X SG T1		-.564	.436	-.210	TE T2 X SR T1		-.503	.530	-.144
TE T2 X SR T1		.031	.355	.012					
Separation Individuation					Separation Individuation				
Internalizing Symptoms T1	.154***				Main Effects	.036			
Main Effects	.176**								

	Step R ²	B	SE B	β		Step R ²	B	SE B	B
Internalizing Symptoms					Well-Being				
Internalizing Symptoms T1		.402	.105	.378***					
TE T2		-.870	1.708	-.050	TE T2		-1.746	2.551	-.073
ENG T1		.104	.146	.070	ENG T1		-.266	.218	-.130
NUR T1		.220	.182	.117	NUR T1		-.322	.278	-.123
Two-way Interactions	.195**				Two-way Interactions	.036			
TE T2 X ENG T1		.009	.351	.003	TE T2 X ENG T1		.009	.531	.002
TE T2 X NUR T1		-.591	.412	-.165	TE T2 X NUR T1		.063	.625	.013
Identity Development					Identity Development				
Internalizing Symptoms T1	.154***								
Main Effects	.171**				Main Effects	.005			
Internalizing Symptoms T1		.412	.105	.388***					
TE T2		-1.245	1.715	-.071	TE T2		-1.524	2.604	-.064
MOR T1		.061	.075	.084	MOR T1		.017	.113	.017
ACH T1		-.045	.073	-.063	ACH T1		.034	.113	.034
Two-way Interactions	.182**				Two-way Interactions	.021			
TE T2 X MOR T1		.154	.188	.091	TE T2 X MOR T1		-.311	.285	-.136
TE T2 X ACH T1		.132	.154	.109	TE T2 X ACH T1		-.134	.233	-.082

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement; TE = Time Expectations.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

levels of nurturance seeking were associated with high levels of internalizing symptoms regardless of whether or not individuals had met their expectations with regard to how they were spending their time. There were no main or interaction effects in the cross-sectional regression analyses of separation-individuation (Time 2) and meeting expectations for spending time (Time 2) in the prediction of well-being (Time 2) (Table 8). In longitudinal analyses, neither main nor interaction effects were found in the prediction of internalizing symptoms (Time 2) or well-being (Time 2) (Table 9).

Interaction between meeting time expectations and identity formation subscales.

Although there were no significant interaction effects between time expectations and identity formation subscales in cross-sectional analyses, a main effect was found in the regression of identity achievement (Time 2) on internalizing symptoms (Time 2) ($\beta = -.403, p = .000$) and on well-being (Time 2) ($\beta = .389, p = .000$) (Table 8). There were no significant longitudinal main or interaction effects between either of the identity subscales (Time 1) and meeting expectations for spending time (Time 2) in the prediction of internalizing symptoms (Time 2) or well-being (Time 2) (Table 9).

Interaction between meeting financial expectations and autonomy development subscales. There were no significant cross-sectional main or interaction effects for the relation between autonomy (Time 2) and meeting financial expectations (Time 2) on internalizing symptoms (Time 2) or well-being (Time 2) (Table 10). Longitudinal regressions for autonomy (Time 1) and meeting financial expectations (Time 2) similarly did not yield any significant main or interaction effects in the prediction of internalizing symptoms (Time 2) or well-being (Time 2) (Table 11).-

Table 10.

Regression summary table: Interactions between Psychosocial Developmental Tasks T2 and Financial Expectations (FE) T2 on Internalizing Symptoms T2 and Well-Being T2.

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Autonomy					Autonomy				
Main Effects	.037				Main Effects	.047			
FE T2		-.333	1.747	-.020	FE T2		-.330	2.458	-.014
FIT2		.058	.160	.044	FIT2		-.115	.225	-.063
SG T2		-.360	.204	-.223 [†]	SG T2		.548	.283	.246 [†]
SR T2		.140	.173	.092	SR T2		-.017	.241	-.008
Two-way Interaction	.041				Two-way Interaction	.061			
FE T2 X FIT2		-.116	.336	-.064	FE T2 X FIT2		.396	.471	.156
FE T2 X SG T2		.007	.419	.003	FE T2 X SG T2		-.535	.578	-.180
FE T2 X SR T2		.212	.389	.112	FE T2 X SR T2		-.065	.542	-.025
Separation					Separation				
Individuation					Individuation				
Main Effects	.064				Main Effects	.025			
FE T2		-.551	1.691	-.033	FE T2		.249	2.448	.011
ENG T2		-.058	.121	-.049	ENG T2		-.076	.185	-.044
NUR T2		.445	.180	.252 [*]	NUR T2		-.370	.263	-.149
Two-way Interaction	.100 [†]				Two-way Interaction	.026			
FE T2 X ENG T2		.107	.344	.083	FE T2 X ENG T2		.139	.530	.073
FE T2 X NUR T2		.656	.360	.278 [†]	FE T2 X NUR T2		.039	.539	.012

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Identity Development					Identity Development				
Main Effects	.192***				Main Effects	.157**			
FE T2		-.137	1.581	-.008	FE T2		-.609	2.290	-.026
MOR T2		.086	.069	.118	MOR T2		-.061	.100	-.062
ACH T2		-.312	.074	-.403***	ACH T2		.410	.107	.382***
Two-way Interaction	.224***				Two-way Interaction	.198**			
FE T2 X MOR T2		-.240	.140	-.214†	FE T2 X MOR T2		.249	.202	.159
FE T2 X ACH T2		-.199	.162	-.214	FE T2 X ACH T2		.454	.236	.350†

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement; FE = Financial Expectations.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 11.

Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and Financial Expectations (FE) T2 on Internalizing Symptoms T2 and Well-Being T2.

	Step R ²	B	SE B	B		Step R ²	B	SE B	B
Internalizing Symptoms					Well-Being				
Autonomy					Autonomy				
Internalizing Symptoms T1	.160***				Main Effects	.014			
Internalizing Symptoms T1		.518	.113	.487***	FE T2		.412	2.490	.018
FE T2		1.741	1.679	.104	FIT1		-.133	.218	-.080
FIT1		.069	.142	.057	SG T1		-.116	.268	-.057
SG T1		.196	.183	.135	SR T1		.164	.245	.078
SR T1		-.163	.160	-.107	Two-way Interactions	.036			
Two-way Interactions	.212**				FE T2 X FIT1		-.134	.488	-.064
FE T2 X FIT1		-.036	.323	-.024	FE T2 X SG T1		-.473	.621	-.184
FE T2 X SG T1		.176	.404	.096	FE T2 X SR T1		-.095	.517	-.034
FE T2 X SR T1		.329	.335	.164					
Separation Individuation					Separation Individuation				
Internalizing Symptoms T1	.160***				Main Effects	.034			
Internalizing Symptoms T1		.449	.107	.422***	FE T2		-.462	2.471	-.020
FE T2		2.228	1.694	.133	ENG T1		-.240	.211	-.119
ENG T1		.092	.138	.064					

	Step R ²	B	SE B	B		Step R ²	B	SE B	B
Internalizing Symptoms					Well-Being				
NUR T1		.277	.176	.151	NUR T1		-.375	.273	-.146
Two-way Interactions	.220**				Two-way Interactions	.034			
FE T2 X ENG T1		.000	.307	.000	FE T2 X ENG T1		.037	.495	.016
FE T2 X NUR T1		.595	.352	.223†	FE T2 X NUR T1		.086	.556	.024
Identity Development					Identity Development				
Internalizing Symptoms T1	.160***				Main Effects	.001			
Main Effects	.180**								
Internalizing Symptoms T1		.450	.109	.423***	FE T2		.109	2.478	.005
FE T2		1.642	1.690	.098	MOR T1		.003	.111	.003
MOR T1		.050	.073	.069	ACH T1		.030	.111	.030
ACH T1		-.043	.072	-.060	Two-way Interactions	.031			
Two-way Interactions	.195**				FE T2 X MOR T1		.361	.234	.283
FE T2 X MOR T1		-.192	.152	-.207	FE T2 X ACH T1		.267	.258	.228
FE T2 X ACH T1		-.110	.167	-.130					

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement; FE = Financial Expectations.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Interaction between meeting financial expectations and separation-individuation subscales. There were no significant main and interaction effects between separation-individuation (Time 2) and meeting financial expectations (Time 2) on well-being (Time 2) (Table 10). A significant cross-sectional main effect was found for the regression analysis of nurturance seeking (Time 2) on internalizing symptoms (Time 2) ($\beta = .252, p = .015$) (Table 10). Regardless of whether or not individuals met their financial expectations, higher levels of nurturance seeking (Time 2) were predictive of higher levels of internalizing symptoms (Time 2). Longitudinal analyses did not yield any significant main or interaction effects for separation-individuation (Time 1) and financial expectations (Time 2) in the prediction of either of the outcome variables (Time 2) (Table 11).

Interaction between meeting financial expectations and identity formation subscales. In the cross-sectional analyses, there were no significant interaction effects between identity formation (Time 2) and meeting financial expectations (Time 2); however, a significant main effect emerged for identity achievement (Time 2) in the prediction of internalizing symptoms (Time 2) ($\beta = -.403, p = .000$) (Table 10). There was also a significant main effect for identity achievement (Time 2) in the prediction of well-being (Time 2) ($\beta = .382, p = .000$) (Table 10). Neither main nor interaction effects were found for longitudinal analyses of identity formation (Time 1) and financial expectations (Time 2) in the prediction of internalizing symptoms (Time 2) and well-being (Time 2) (Table 11).

In summary, the hypothesis that external stress, meeting residential expectations,

meeting time expectations, and meeting financial expectations would moderate the relations between the three psychosocial developmental variables and the two outcome variables was partially supported. Specifically, at high levels of stress (Time 2), low levels of identity achievement (Time 2) were significantly predictive of high levels of internalizing symptoms (Time 2).

Gender Analyses

Analyses were conducted to determine whether gender moderated the associations between the predictor variables and the outcome variables, as well as between the predictor variables and the mediating variables (i.e. feeling “in-between,” feeling “off time,” and physiological arousal due to stress). As in the previous regression analyses, psychosocial developmental variables were centered and gender was dummy coded, and product terms were created for each of the psychosocial variables and gender before analyses were run. Additionally, cross-sectional and longitudinal hierarchical regression analyses were conducted as described under Hypothesis 3.

All gender analyses were exploratory with two exceptions. First, it was hypothesized that gender would moderate the cross-sectional and longitudinal relations between separation-individuation and internalizing symptoms, and between separation-individuation and well-being. Specifically, higher scores on measures of engulfment anxiety and nurturance seeking would be associated with more internalizing symptoms and lower levels of well-being for females, but not males. Second, it was hypothesized that gender would moderate the relation between engulfment anxiety and feeling “in-between,” and between engulfment anxiety and feeling “off-time.” Specifically, it was

posited that males would experience higher levels of feeling “in-between” and “off time” when they experienced higher levels of engulfment anxiety.

Hypothesis 4. In cross-sectional analyses, there were no significant interaction effects in the regression of gender and separation-individuation subscales (Time 2) on internalizing symptoms (Time 2) or well-being (Time 2). A significant cross-sectional main effect was found in the regression analysis of nurturance seeking (Time 2) ($\beta = .246, p = .021$) in the prediction of internalizing symptoms (Time 2) (Table 12).

Longitudinal analyses did not yield significant main or interaction effects (Table 13).

Hypothesis 5. When examining the impact of gender on the relation between engulfment anxiety and feeling “in-between,” neither main nor interaction effects were found in cross-sectional or longitudinal analyses (Tables 14 and 15). Similarly, gender did not moderate the relation between engulfment anxiety and feeling “off time” (Tables 14 and 15).

Exploratory gender analyses: Gender moderating associations between predictors and outcomes. The effect of gender on the relations between the three psychosocial developmental predictors and the two outcome variables was examined. Cross-sectional analyses did not reveal any significant main or interaction effects for gender and autonomy development in the prediction of internalizing symptoms or well-being. There was also an absence of significant main and interaction effects in the longitudinal analyses.

Although there were no significant interaction effects in the cross-sectional regression analysis of identity formation and gender on internalizing symptoms or well-

Table 12.

Regression summary table: Interactions between Psychosocial Developmental Tasks T2 and Gender T2 on Internalizing Symptoms T2 and Well-Being T2.

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Autonomy					Autonomy				
Main Effects	.047				Main Effects	.048			
Gender		2.006	1.955	.106	Gender		-.889	2.837	-.033
FIT2		.069	.159	.052	FIT2		-.124	.225	-.068
SG T2		-.390	.204	-.241†	SG T2		.560	.286	.251†
SR T2		.144	.172	.094	SR T2		-.019	.241	-.009
Two-way Interaction	.070				Two-way Interaction	.112			
Gender X FIT2		.033	.429	.022	Gender X FIT2		-.200	.622	-.098
Gender X SG T2		.124	.448	.064	Gender X SG T2		-.306	.616	-.114
Gender X SR T2		.495	.467	.291	Gender X SR T2		-1.015	.660	-.438
Separation Individuation					Separation Individuation				
Main Effects	.063				Main Effects	.026			
Gender		.426	1.973	.022	Gender		1.012	2.956	.038
ENG T2		-.056	.122	-.047	ENG T2		-.068	.186	-.039
NUR T2		.436	.185	.246*	NUR T2		-.396	.274	-.159
Two-way Interaction	.071				Two-way Interaction	.030			

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Gender X ENG T2		-.223	.315	-.167	Gender X ENG T2	.267	.468	.135	
Gender X NUR T2		.284	.445	.137	Gender X NUR T2	-.060	.730	-.021	
Identity Development					Identity Development				
Main Effects	.199***				Main Effects	.157**			
Gender		1.594	1.772	.084	Gender		-.632	2.641	-.024
MOR T2		.081	.069	.111	MOR T2		-.062	.100	-.062
ACH T2		-.315	.073	-.407***	ACH T2		.409	.107	.381***
Two-way Interaction	.216***				Two-way Interaction	.159*			
Gender X MOR T2		.232	.169	.284	Gender X MOR T2		.105	.247	.093
Gender X ACH T2		-.031	.177	-.035	Gender X ACH T2		-.036	.272	-.030

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 13.

Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and Gender T2 on Internalizing Symptoms T2 and Well-Being T2.

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
Autonomy					Autonomy				
Internalizing Symptoms T1	.160***				Main Effects	.014			
Main Effects					Main Effects				
Internalizing Symptoms T1		.482	.108	.453***	Gender		.427	2.943	.016
Gender		1.672	1.832	.088	FIT1		-.131	.217	-.078
FIT1		.080	.142	.067	SG T1		-.121	.273	-.060
SG T1		.161	.185	.111	SR T1		.161	.244	.076
SR T1		-.169	.160	-.110	Two-way Interactions				
Two-way Interactions					Two-way Interactions				
Gender X FIT1	.196*	.131	.366	.094	Gender X FIT1	.059	.270	.551	.143
Gender X SG T1		.103	.434	.060	Gender X SG T1		-.786	.670	-.336
Gender X SR T1		-.048	.412	-.029	Gender X SR T1		-.948	.628	-.406
Separation Individuation					Separation Individuation				
Internalizing Symptoms T1	.160***				Main Effects	.034			
Main Effects					Main Effects				
Internalizing Symptoms T1		.405	.102	.381***	Gender		-.552	2.978	-.021
Gender		2.464	1.892	.130	ENG T1		-.253	.221	-.126
ENG T1		.159	.146	.110					

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Internalizing Symptoms					Well-Being				
NUR T1		.214	.174	.116	NUR T1		-.359	.272	-.140
Two-way Interactions	.205**				Two-way Interactions	.035			
Gender X ENG T1		.321	.306	.172	Gender X ENG T1		-.002	.475	-.001
Gender X NUR T1		-.055	.385	-.025	Gender X NUR T1		-.186	.634	-.062
Identity Development					Identity Development				
Internalizing Symptoms T1	.160***				Main Effects	.001			
Main Effects	.183**								
Internalizing Symptoms T1		.421	.103	.396***	Gender		-.104	2.861	-.004
Gender		2.022	1.797	.107	MOR T1		.003	.111	.003
MOR T1		.057	.073	.079	ACH T1		.030	.112	.030
ACH T1		-.043	.072	-.059	Two-way Interactions	.008			
Two-way Interactions	.185**				Gender X MOR T1		-.067	.299	-.059
Gender X MOR T1		.064	.189	.078	Gender X ACH T1		-.256	.328	-.232
Gender X ACH T1		.068	.192	.084					

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 14.

Regression summary table: Interactions between Psychosocial Developmental Tasks T2 and Gender on Feeling “In-between” T2 and Feeling “Off Time” T2.

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Feeling “In-between” T2					Feeling “Off Time” T2				
Autonomy					Autonomy				
Main Effects	.264***				Main Effects	.134**			
Gender		1.697	.745	.207	Gender		.008	.154	.005
FI T2		-.089	.061	-.156	FI T2		.006	.013	.051
SG T2				-	SG T2				-
SR T2		-.299	.078	.427**	SR T2		-.055	.016	.413**
				*					
SR T2		.080	.065	.122	SR T2		.010	.013	.076
Two-way Interaction	.272***				Two-way Interaction	.213**			
Gender T2 X FIT2		.131	.165	.204	Gender X FIT2		.041	.033	.338
Gender X SG T2		-.025	.172	-.030	Gender X SG T2		-.003	.034	-.016
Gender X SR T2		-.141	.179	-.191	Gender X SR T2		.059	.035	.420
Separation Individuation					Separation Individuation				
Main Effects	.029				Main Effects	.041			
Gender		1.352	.871	.165	Gender		-.052	.164	-.033
ENG T2		-.003	.054	-.006	ENG T2		.018	.010	.183†
NUR T2		.013	.082	.017	NUR T2		.008	.015	.057
Two-way Interaction	.034				Two-way Interaction	.043			

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Feeling “In-between” T2					Feeling “Off Time” T2				
Gender X ENG T2		.004	.139	.007	Gender X ENG T2		-.009	.026	-.084
Gender X NUR T2		.137	.197	.152	Gender X NUR T2		.012	.037	.073
Identity Development					Identity Development				
Main Effects	.106*				Main Effects	.071†			
Gender		1.348	.812	.164	Gender		-.074	.157	-.047
MOR T2		.047	.032	.149	MOR T2		.012	.006	.201†
ACH T2		-.072	.033	-.214*	ACH T2		-.009	.006	-.142
Two-way Interaction	.113†				Two-way Interaction	.091			
Gender X MOR T2		-.046	.078	-.129	Gender X MOR T2		.013	.015	.193
Gender X ACH T2		.040	.082	.107	Gender X ACH T2		.019	.016	.263

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 15.

Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and Gender on Feeling “In-between” T2 and Feeling “Off Time” T2.

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Feeling “In-between”					Feeling “Off Time”				
Autonomy					Autonomy				
Main Effects	.124*				Main Effects	.034			
Gender		1.717	.822	.209*	Gender		-.002	.164	-.001
FI T1		.019	.064	.036	FI T1		.005	.013	.051
SG T1		-.079	.079	-.126	SG T1		-.026	.016	-.219
SR T1		-.172	.071	-.259*	SR T1		.006	.014	.045
Two-way Interactions	.156*				Two-way Interactions	.060			
Gender X FIT1		.063	.162	.104	Gender X FIT1		-.014	.032	-.123
Gender X SG T1		-.143	.191	-.193	Gender X SG T1		.010	.038	.070
Gender X SR T1		.291	.182	.396	Gender X SR T1		.056	.036	.401
Separation Individuation					Separation Individuation				
Main Effects	.042				Main Effects	.005			
Gender		1.563	.890	.190†	Gender		-.023	.172	-.014
ENG T1		.056	.068	.089	ENG T1		.008	.013	.067
NUR T1		.065	.082	.081	NUR T1		-.001	.016	-.008
Two-way Interactions	.055				Two-way Interactions	.035			
Gender X ENG T1		.135	.144	.166	Gender X ENG T1		.004	.028	.026
Gender X NUR T1		.091	.180	.096	Gender X NUR T1		-.058	.035	-.319†

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Feeling “In-between”					Feeling “Off Time”				
Identity Development					Identity Development				
Main Effects	.126**				Main Effects	.054			
Gender		1.411	.800	.172†	Gender		-.054	.158	-.035
MOR T1		.054	.032	.172†	MOR T1		.009	.006	.156
ACH T1		-.067	.032	-.214*	ACH T1		-.008	.006	-.129
Two-way Interactions	.130*				Two-way Interactions	.062			
Gender X MOR T1		.018	.083	.052	Gender X MOR T1		-.014	.016	-.209
Gender X ACH T1		.050	.085	.141	Gender X ACH T1		-.007	.017	-.112

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

being, significant main effects emerged (Table 12). Specifically, there was a significant main effect for identity achievement (Time 2) ($\beta = -.407, p = .000$) in the prediction of internalizing symptoms (Time 2). There was also a significant main effect for identity achievement (Time 2) ($\beta = .381, p = .000$) in the prediction of well-being (Time 2). Higher levels of achievement (Time 2) were associated with lower levels of internalizing symptoms (Time 2) and higher level of well-being (Time 2) for both males and females. Longitudinal analyses did not yield significant results (Table 13).

Exploratory gender analyses: Gender moderating associations between predictors and mediators. The effect of gender on the relations between the independent variables and mediators was also examined. In cross-sectional analyses, there were no significant interactions between the three psychosocial developmental predictors and gender on feeling “in-between;” however, there was a significant cross-sectional main effect for self governance (Time 2) ($\beta = -.427, p = .000$) and identity achievement (Time 2) ($\beta = -.214, p = .034$) in the prediction of feeling “in-between” (Time 2) (Table 14). Specifically, lower levels of self governance (Time 2) and achievement (Time 2) were associated with higher levels of feeling “in-between” (Time 2) for both males and females (Table 14). In longitudinal analyses, main effects were found for separate residence (Time 1) ($\beta = -.259, p = .018$) and identity achievement (Time 1) ($\beta = -.214, p = .039$) in the prediction of feeling “in-between” (Time 2) (Table 15). Regardless of gender, lower levels of separate residence (Time 1) and identity achievement (Time 1) were associated with higher levels of feeling “in-between” (Time 2) (Table 15).

In regression analyses conducted to determine the effect of gender on the relation between psychosocial development and feeling “off time,” significant cross-sectional main effects were found for self governance (Time 2) ($\beta = -.413, p = .001$) in the prediction of feeling “off time” (Time 2) (Table 14). Lower levels of self governance (Time 2) were predictive of higher levels of feeling “off time” for males and females. Longitudinal analyses did not generate significant results (Table 15).

Finally, the effect of gender on the relation between psychosocial development and physiological arousal due to stress was examined (Table 16). In cross-sectional analyses, there were no significant interaction effects between the three psychosocial developmental variables and gender in the prediction of stress. In contrast, main effects emerged for nurturance seeking (Time 2) ($\beta = .211, p = .045$) and identity achievement (Time 2) ($\beta = -.243, p = .017$) in the prediction of physiological due to stress (Time 2). Higher levels of nurturance seeking and lower levels of identity achievement were associated with higher levels of stress for both males and females. There was an absence of significant main and interaction effects in longitudinal analyses.

Table 16.

Regression summary table: Interactions between Psychosocial Developmental Tasks T1 and T2 and Gender on Physiological Arousal due to Stress (Stress) T2.

					Step R ²	B	SE B	β		
Stress					Stress					
Autonomy					Autonomy					
Physiological Arousal T1	.150***				Main Effects	.075				
Main Effects	.180**				Gender	1.801	1.094	.168		
Physiological Arousal T1		.383	.097	.387***	FI T2	-.045	.089	-.059		
Gender		1.828	1.047	.170†	SG T2	-.198	.114	-.215†		
FI T1		-.018	.081	-.027	SR T2	.066	.096	.076		
SG T1		-.034	.103	-.041	Two-way Interaction	.105				
SR T1		-.021	.091	-.024	Gender X FIT2	-.086	.239	-.102		
Two-way Interaction	.191*				Gender X SG T2	.061	.250	.055		
Gender X FIT1		.130	.210	.165	Gender X SR T2	.393	.260	.407		
Gender X SG T1		-.023	.247	-.024						
Gender X SR T1		.118	.236	.123						
Separation Individuation					Separation Individuation					
Physiological Arousal T1	.150***				Main Effects	.080†				
Main Effects	.205***									
Physiological Arousal T1		.372	.095	.375***						

	Step R ²	B	SE B	β		Step R ²	B	SE B	β
Stress					Stress				
Gender		1.907	1.069	.177†	Gender		1.186	1.110	.110
ENG T1		.084	.083	.102	ENG T2		.068	.069	.100
NUR T1		.148	.098	.141	NUR T2		.212	.104	.211*
Two-way Interaction	.226**				Two-way Interaction	.100†			
Gender X ENG T1		.267	.171	.251	Gender X ENG T2		-.093	.176	-.123
Gender X NUR T1		-.064	.216	-.051	Gender X NUR T2		.347	.249	.296
Identity Development					Identity Development				
Physiological Arousal T1	.150***				Main Effects	.108*			
Main Effects	.201***				Gender		1.562	1.061	.145
Physiological Arousal T1		.375	.096	.378***	MOR T2		.055	.041	.132
Gender		1.705	1.007	.159†	ACH T2		-.106	.044	-.243*
MOR T1		.049	.041	.118	Two-way Interaction	.135*			
ACH T1		-.032	.041	-.078	Gender X MOR T2		.165	.101	.356
Two-way Interaction	.209**				Gender X ACH T2		-.014	.105	-.028
Gender X MOR T1		.060	.106	.128					
Gender X ACH T1		-.044	.107	-.096					

Note. FI = Financial Independence; SG = Self Governance; SR = Separate Residence; ENG = Engulfment Anxiety; NUR = Nurturance Seeking; MOR = Moratorium; ACH = Achievement.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

CHAPTER IV

DISCUSSION

The majority of studies in the area of emerging adulthood have attempted to demonstrate that it is distinct from other developmental stages, but little is known about the developmental nature of the period itself, particularly during the transition from college (Arnett, 2001). Thus, the present study attempted to fill this gap in the research and explore the developmental structure of the emerging adulthood period. Emerging adulthood can be a uniquely stressful time, because as individuals undergo various developmental transitions, they are vulnerable to maladjustment (Graber & Brooks-Gunn, 1996b). While most emerging adults are able to cope with external stressors and experience high levels of well-being, a notably high percentage of individuals experience depressive and anxious symptoms (Nelson & Berry, 2005; Quintana & Kerr, 1993; Reinherz et al., 1999; Reinherz et al., 2003; Schulenberg & Zarrett, 2006).

As few studies had considered the overall of role of psychosocial development on internalizing symptoms and well-being during late emerging adulthood, a previous cross-sectional study conducted by the author examined whether autonomy development, separation-individuation, and identity formation might account for internalizing symptoms among seniors in college (Edidin & Gaylord-Harden, 2009). The findings indicated that lower levels of self governance, as well as higher levels of engulfment anxiety and moratorium, were predictive of higher levels of internalizing symptoms.

Because of the significant associations among these variables, the current study sought to expand this research. In particular, the present study examined whether psychosocial development prior to graduation from college predicted internalizing symptoms and well-being a year after college. The relations among these variables were also studied cross-sectionally in the year after graduation from college. Possible mechanisms for the relation among these variables and factors that might increase vulnerability to poor adjustment were also studied (Amada & Grayson, 1988; Berry, 2004; Walters, 1989).

Additionally, due to the inconsistent results from earlier studies that have addressed the role of gender in the relation between development and adjustment, particularly internalizing symptoms, the current study examined the impact of gender on the relation between achievement of developmental tasks and adjustment during emerging adulthood (Galambos et al., 2006; Lewinsohn et al., 2003; Mirowsky, 1996; Reinherz et al., 1999).

Psychosocial Variables as Predictors of Internalizing Symptoms and Well-Being

The hypothesis that lower scores on constructs of functional autonomy (financial independence, separate residence, and self governance subscales) and healthy identity formation (achieved and moratorium subscales), as well as higher scores on measures of separation-individuation (engulfment anxiety and nurturance seeking subscales), would predict higher levels of internalizing symptoms and lower levels of well-being, both cross-sectionally and longitudinally, was partially supported. Although not all of the psychosocial developmental variables were predictive of internalizing symptoms and well-being, for those that were, they were associated with adjustment in the predicted

directions. None of the three subscales of autonomy were significantly predictive of internalizing symptoms or well-being in cross-sectional analyses; however, separation-individuation and identity formation at Time 2 were predictive of Time 2 outcomes. With regards to separation-individuation subscales, higher levels of nurturance seeking (Time 2) were significantly associated with higher levels of internalizing symptoms (Time 2); thus, supporting the hypotheses. Significant cross-sectional relations were also found between identity achievement and both outcome variables. As hypothesized, higher levels of identity achievement were associated with lower levels of internalizing symptoms and higher levels of well-being. Longitudinal analyses did not yield significant relations between any of the three psychosocial developmental predictors and the two outcome variables.

Autonomy as a predictor of adjustment. The relation between autonomy development and adjustment remains unclear, as some studies have demonstrated a relation between these variables and others have not (Anderson & Flemming, 1986; Gutman & Sameroff, 2004; Holmbeck & Wandrei, 1993; Lapsley & Edgerton, 2002; Moore, 1987). The current study assessed multiple indicators of functional autonomy development, including self governance, separate residence, and financial independence, and the findings are consistent with studies that show there is no relation between autonomy development and internalizing symptoms or well-being. In the domain of home leaving, prior research has been inconclusive. Some studies indicate that extreme proximity to one's home is often associated with the inability to make decisions for oneself and, therefore, maladjustment (Dubas & Petersen, 1996). In contrast, other

studies have found that emerging adults who leave home during late emerging adulthood experience higher levels of internalizing and externalizing symptoms (Seiffge-Krenke, 2006). Still others have found that there is no difference in adjustment between emerging adults who live at home and those who do not (Graber & Brooks-Gunn, 1996a).

The population of the current study differed from some of the previous studies that have found a relation between home-leaving and adjustment. Whereas some of these studies used freshman and sophomore college student samples, the current study examined an older sample of emerging adults, in particular college seniors and recent college graduates. Given the differences between the current study and previous research, it is possible that issues regarding separate residence are not as salient for older emerging adults when compared to college freshmen and sophomores, who are in the midst of the transition to college. This may explain why college freshmen experience more adjustment problems when compared to older students (Oswald & Clark, 2003). Additionally, as the majority of emerging adults in this sample had lived independently in college, it is even more likely that issues of separate residence after college are not significant for individuals in this age group.

Additionally, some previous studies have been conducted in Western countries other than the United States (e.g., Seiffge-Krenke, 2006). Despite increasing similarities among westernized societies, other countries may indeed have different cultural norms that affect the relation between home-leaving and adjustment. A study that used a sample similar to that in the current study (i.e., predominately white, middle-class emerging adults that had graduated from private colleges) did not find a relation between home-

leaving and adjustment (Graber & Brooks-Gunn, 1996a).

Another possible explanation for the absence of a relation between separate residence and adjustment is the diversity of experiences and readiness to assume more residential autonomy among individuals in this age group (Quintana & Kerr, 1993). When compared to living arrangements at Time 1, a greater number individuals at Time 2 lived independently (i.e. in an apartment alone or with roommates) (38.6% at Time 1 and 62.5% at Time 2) and at home with their parents (14.6% at Time 1 and 21.9% at Time 2). There was also an increase in the number of individuals who endorsed having another living arrangement (8.3% at Time 1 and 13.5% at Time 2). When examined in greater detail, almost all of these individuals at Time 1 indicated that they were living in campus-owned housing. In contrast, at Time 2, there was notably more diversity in residential arrangements (e.g. “moving around,” “living with host families,” “house-sitting,” and “living with a sibling”). Additionally, because returning home after college has become increasingly common, as has living at home for longer periods of time, families may be gradually adjusting to this sociological trend; thus, there may be more variability in the parent-child interaction during this time. While some emerging adults are able to achieve a healthy balance of autonomy and emotional connection, which is essential for successful adjustment, others are not, which would also prevent a significant relation between residential development and adjustment (Gavazzi & Sabatelli, 1990; Holmbeck & Wandrei, 1993; Lapsley & Edgerton, 2002; Perosa & Perosa, 1993).

The role of financial autonomy on psychosocial functioning also remains unclear. Research that has examined employment and financial independence during emerging

adulthood, particularly in the first few years of work, has also revealed substantial variability (Arnett, 2006; Galambos et al., 2006, Thiessen & Looker, 1999). Some studies, for example, have linked financial dependence to maladjustment. In particular, these studies have found that feelings of incompetence or anger often accompany financial support (Lapsley et al., 1989). However, more recent studies indicate that it is not financial independence or wage satisfaction that is an important predictor of adjustment, but rather the quality of the work experience (e.g. a satisfying work experience) (Mortimer & Staff, 2004; Schulenberg et al., 2004). The findings of the current study are consistent with other studies that have not found a relation between financial autonomy and adjustment. Another possible explanation for the lack of findings is that many people do not enter consistent full-time employment until their mid-twenties and, therefore, financial independence may be a less relevant predictor of adjustment during emerging adulthood (Mortimer et al., 2002; Schulenberg et al., 2004). This is supported by the results of the current study, as only 56% of college graduates were engaged in full-time work. The remainder were involved in part-time work, graduate school, travel, unemployment, or a combination of activities.

Also inconsistent with previous studies was the lack of a relation between self-governance and adjustment. Over the course of college, individuals make decisions about their courses, extracurricular activities, and other aspects of their lives (Zarrett & Eccles, 2006). Additionally, for those college students who live away from home, which included approximately 75% of this sample, their parents are less likely to underestimate the maturity that they acquire during this time (Flanagan, Schulenberg, & Fuligni, 1993).

Consequently, while emerging adults may require appreciable financial support, this may not be accompanied by a stark reduction in self governance. It is also notable that there was limited range of scores on this subscale at Time 2, which may have precluded a significant cross-sectional relation between self-governance and either of the outcome variables. Specifically, all of the emerging adults at Time 2 perceived themselves as having medium to high levels of self governance. The lack of variability in scores, particularly with no scores in the lower range of the spectrum, suggests that problems in this area of autonomy development may not be salient among college graduates. This explanation is supported by a comparison with the Time 1 data. In particular, a greater percentage of participants endorsed lower levels of self governance during the first wave of data collection and there was a significant association between self governance and internalizing symptoms at Time 1, despite lower levels of overall internalizing symptoms at that time. This suggests that the issue of self governance may be more relevant for emerging adults in college compared to those that have graduated.

Separation-individuation as a predictor of adjustment. In contrast to the absence of findings for autonomy development, separation-individuation was significantly associated with adjustment. Specifically, nurturance seeking, which reflects a desire for parental nurturance and feeling of oneness in relationships with others, emerged as a predictor of emotional functioning, as higher levels of nurturance seeking were associated with higher levels of internalizing symptoms in cross-sectional analyses. This finding was consistent with the hypotheses. Healthy separation-individuation is contingent upon psychologically separating from one's parents while remaining connected (Holmbeck &

Wandrei, 1993; Quintana & Kerr, 1939; Tanner, 2006). Specifically, positive feelings about separation from one's parents allows for successful separation and individuation and, consequently, healthy functioning (Rice et al., 1990). Studies of adolescents reveal that individuals high in nurturance seeking are likely to be enmeshed as they struggle to develop emotional autonomy and, therefore, experience more conflict with parents and poorer adjustment (Gavazzi & Sabatelli, 1990; McClanahan & Holmbeck, 1992; Lapsley & Edgerton, 2002; Lemma, 2004; Quintana & Kerr, 1993).

It is also possible that there is a reciprocal relation between internalizing symptoms and nurturance seeking, such that internalizing symptoms provoke unhealthy parent-child interactions. In fact, studies have supported a transactional relation between depression and interpersonal relationships. Depressive behaviors can elicit negative responses from others, which then exacerbate the symptoms (Coyne, Kahn, & Gotlib, 1987; Hammen, 1991). Studies have indicated that parents of depressed adolescents and young adults are more overprotective and emotionally over-involved (Blatt and Homann, 1992; Parker, 1981; Patton, Coffey, Posterino, Carlin, & Wolfe, 2001; Sheeber, 2001). A similar relation has been found for anxiety. Studies of anxious children have found that they tend to produce more interfering parental behaviors and parental responses that promote avoidant behavior in the face of challenges, which reinforces the anxiety (Hudson & Rapee, 2001).

Inconsistent with predictions, nurturance seeking was not associated with well-being. The lack of an association between nurturance seeking and well-being may be explained in multiple ways. Relative to the internalizing symptoms scale, the well-being

scale assesses other areas of functioning, such as maladaptive coping (e.g. self-medicating), positive affect, and life satisfaction. While healthier functioning in these areas is associated with higher levels of well-being, poorer functioning can be associated with depressive symptoms. It is possible that the strong association between nurturance seeking and internalizing was driven specifically by anxious symptoms, rather than a combination of anxious and depressive symptoms. In other words, excessive dependence on parents may specifically produce anxiety, but not depression, as emerging adults venture out into the world after college graduation. This is supported by psychoanalytic theory, which suggests that fear of object loss (i.e., typically mother or father) and helplessness, as well as new expectations and demands on the superego, increase vulnerability to anxiety (Amada & Grayson, 1989). While many emerging adults in the sample lived away from home, graduation from college may mean moving farther away from home or may symbolize entry into adulthood, which they may associate with expectations that they should not depend on their mother or father. It is also possible that emerging adults who have a dysfunctional relationship with their parents are uniquely vulnerable to experience anxious symptoms. A previous study by McClanahan and Holmbeck (1992) found that high levels of nurturance seeking in college freshmen were associated with positive family functioning, but not with positive adjustment. Because nurturance seeking was also negatively correlated with emotional autonomy, they proposed that individuals from extremely cohesive families may not be able to function independently and, therefore, struggle when they transition to college. Although emotional autonomy was not measured in the present study, it is possible that

McClanahan and Holmbeck's explanation is applicable to older emerging adults who have recently transitioned from college. Specifically, a lack of independence during college may elicit feelings of vulnerability and anxiety in emerging adults as they enter what has traditionally been adulthood, which they may believe they are supposed to navigate independently.

Unlike nurturance seeking, engulfment anxiety was not significantly related to internalizing symptoms. This differs from previous studies that have found that higher levels of engulfment anxiety, which reflects concerns about intimate interpersonal relationships due to a fear of losing independence, are associated with higher levels of internalizing symptoms (Holmbeck & Leake, 1999; McClanahan & Holmbeck, 1992). However, unlike the current study, these previous studies included adolescents and college freshmen. While the fear of parental over-control may be germane to the adolescent and college freshman populations that compose earlier studies in this area, it may not be relevant for older emerging adults; therefore, it may not be associated with adjustment. It is also possible that, among emerging adults, this measure reflects a desire to become more autonomous (e.g., I am greatly looking forward to getting out from under the rule of my parents). This wish to be autonomous may not be associated with adjustment if it is offset by a perception that one's parents are supportive (Perosa & Perosa, 1993).

Identity formation as a predictor of adjustment. In studies of identity formation and adjustment, there has been some inconsistency, but numerous studies have found that healthy identity formation is associated with fewer internalizing symptoms and a greater

sense of well-being (Anderson & Fleming, 1986; Tognoli, 2003; Wautier & Blume, 2004). The findings from the current study lend more current support and specificity to this research, as it demonstrated a robust association between identity achievement and internalizing symptoms, and between identity achievement and well-being. The particularly strong association between identity achievement and the outcome variables may be influenced by the age of the population. College provides a time for exploration of and experimentation with different values, beliefs, and worldviews; however, it may be that by the time emerging adults are about to graduate or have recently graduated from college, the exploration process has begun to consolidate their identity (Arnett, 2000a, Tanner, 2006). As such, for older emerging adults, success and difficulty in the process of identity commitment may more significantly affect adjustment when compared to the process of identity exploration.

The absence of a significant association between moratorium and adjustment may be explained by the significant variation that marks this period. Emerging adults explore multiple areas of their lives in order to make decisions. In fact, the EOM-EIS, which was used to assess level of moratorium, includes questions that are intended to tap eight different domains (e.g. romantic relationships, politics, religion, and sex role). While emerging adults may be in the throws of exploration for one area, in another domain they be less open to exploration or have already made commitments in another. The significant variation that exists among the paths that emerging adults choose to explore may affect the outcomes of these pursuits (Arnett, 2000a, 2000b; Tanner, 2006). There are also different types of identity exploration, “depth” and “breadth,” which impact

adjustment differently, but are not distinguished by the instrument used in the current study (Luyckx et al., 2006, p. 363). The vast range of individuals' experiences may prevent a relation between moratorium and adjustment.

Mediated Relations

It was also hypothesized that feeling "in-between," feeling "off-time," and physiological arousal due to stress would mediate the relation between developmental tasks and internalizing symptoms, as well as between developmental tasks and well-being. Of these possible variables, only physiological arousal due to stress emerged as a mediator. Specifically, there were indirect effects for the relations between nurturance seeking and internalizing, identity achievement and internalizing symptoms, and identity achievement and well-being.

Physiological arousal due to stress as a mediator. Consistent with hypotheses, emerging adults who experience significant oneness in their relationships with others and who experienced lower levels of identity achievement were more likely to endorse high levels of stress, which was predictive of high levels of internalizing symptoms. Developmental transitions can be stressful and overwhelm an individual's coping system, thereby causing distress (Garber et al., 2002; Graber & Brooks-Gunn, 1996b). The process of separating and individuating is a significant transition in the lives of adolescents and emerging adults, as is the process of identity development (Arnett, 2000, 2004, 2006; Tanner, 2006). Difficulties in these processes, as reflected by high levels of nurturance seeking and low levels of identity achievement, would likely cause stress, which has been linked to internalizing symptoms and poorer adjustment in numerous

studies (Gavazzi & Sabatelli, 1990; Holmbeck & Leake, 1999; Lemma, 2004; Lapsley & Edgerton, 2002; McClanahan & Holmbeck, 1992; Nelson & Barry, 2005; Quintana & Kerr, 1993; Rasmussen, 1964; Walker et al., 2004; Wautier & Blume, 2004). In contrast, stress did not mediate the relation between developmental variables and well-being; however, higher levels of stress were significantly predictive of lower levels of well-being.

Feeling “in-between” and feeling “off time” as mediators. Unlike stress, feeling “in-between” and feeling “off time” did not mediate the relation between psychosocial development and adjustment, but they were associated with several of the psychosocial developmental variables in both cross-sectional and longitudinal analyses. Several studies have examined self-perceptions of reaching adulthood among emerging adults and have found that emerging adults feel as if they are no longer adolescents, yet are not adults (Arnett, 2000a, 2001). Prior to the current study, research had not examined the predictors or outcomes of the experience of feeling neither like an adolescent nor like an adult; thus, the current study expanded on the existing literature by examining the predictors and outcomes of this subjective experience of feeling “in-between” adolescence and adulthood, as well as that of feeling “off time” relative to one’s peers. Results from the current study were consistent with the literature as they revealed that both traditional role transitions (e.g. separate residence) and psychological markers (e.g. self governance and identity achievement) influence the state of feeling “in-between” (Arnett, 1998, 2000, 2001).

As hypothesized, feeling able to make decisions and manage one's own affairs after college, as well as more residential independence during college, were associated with lower levels of feeling "in-between" adolescence and adulthood after college. These results are consistent with the previous research, which suggests that the criteria that are most important to emerging adults in their subjective perception of reaching adulthood are individual characteristics such as the ability to make decisions and take responsibility for one's self (Arnett, 2000). Identity achievement in college and after college also predicted feeling "in-between" after college. The relation between these variables was in the predicted direction, as higher levels of identity achievement were predictive of lower levels of feeling "in-between." Because identity achieved individuals have made commitments after undergoing a period of exploration and ambiguity, it would follow that these individuals are more likely to identify with having left adolescence and entered into adulthood (Nelson & Barry, 2005).

Given the preceding results and the supposition that feeling "in-between" and feeling "off-time" would have a comparable association with developmental variables, the absence of a relation between identity achievement and feeling "off-time" was surprising; however, it indicates that feeling "in-between" and feeling "off time" gauge different, yet complementary components of emerging adults' subjective experiences. Whereas feeling "in-between" measures the absolute degree to which one feels like an adolescent or an adult, feeling "off time" captures where an individual perceives themselves to be in the process of becoming an adult relative to his or her peers. It follows that the belief that one is able to make decisions and manage one's own affairs

after college would be simultaneously predictive of feeling less “in-between” adolescence and adulthood, as well as feeling ahead of their peers in the process of becoming an adult. Also consistent with expectations, higher levels of moratorium were predictive of higher levels of feeling “off time.” As a period of ambiguity, exploration, and experimentation, moratorium is period of identity crisis (Orlofsky, Marcia, & Lesser, 1973). This uncertainty, particularly after college, may elicit a perception of being behind peers in the process of reaching adulthood.

In addition to their association with several psychosocial developmental variables, feeling “in-between” and feeling “off time” were also predictive of adjustment. Consistent with the hypotheses, higher levels of being suspended between adolescence and adulthood was associated with higher levels of internalizing symptoms (Dubas & Petersen, 1996; Nelson & Barry, 2005). Additionally, feeling more “off time” in the process of becoming an adult was associated with higher levels of internalizing symptoms and lower levels of well-being. This finding lends additional support to studies that have found that deviating from normative development, as defined by the social context, can have a negative psychological impact (Graber & Brooks-Gunn, 1996).

Moderated Relations

It was hypothesized that external stress and not meeting expectations across the domains of residence, how time would be spent, and financial independence after college would moderate the relations between developmental tasks and adjustment, such that at higher levels of stress and not meeting expectations across the three domains, less healthy psychosocial development (i.e., lower levels of autonomy development and identity

formation, and higher levels of separation-individuation) would be associated with higher levels of internalizing symptoms and lower levels of well-being. The prediction was partially supported.

Interaction between autonomy development and external stress. The cross-sectional relation between self governance and well-being was dependent on level of stress; however, when looking specifically at high levels of external stress, the change in well-being as a function of self-governance was not significant. Consequently, the hypothesis was not supported. Several studies have examined the relation between stress and adjustment, as well as the interaction of autonomy and stress in the prediction of adjustment. Unlike the present study, which examined stress as a moderator of autonomy and adjustment, previous studies have examined autonomy as a moderator of stress and adjustment. These studies also differed from the current research, as they specifically examined emotional autonomy or emotional detachment rather than functional autonomy (Ryan & Lynch, 1989; Turner et al., 2004; Van Gundy, 2002). The current study, then, adds greater specificity to this area, as it found that the perception of external stress only influenced the relation between the freedom to make decisions for one's self and well-being. Emerging adults who experience high levels of self governance may be more likely to expose themselves to more external stress, which may in turn overwhelm their coping resources (Turner et al., 2004).

Interaction between separation-individuation and external stress. Also contrary to hypotheses, external stress did not moderate the relation between separation-individuation and adjustment. Although there was a main effect between nurturance

seeking and internalizing symptoms, when external stress was included in the regression, this relation was no longer significant; thus, stress accounts for some of the variance between nurturance seeking and internalizing symptoms. Given that high levels of nurturance seeking reflect dysfunction in the parent-child dyad, this relationship could also be perceived as a stressor, which would account for the overlap in these variables. In the case of engulfment anxiety, if it does not measure concern about excessive parental control, as suggested previously, then it would follow that high levels of external stress would not moderate the relation between this variable and adjustment.

Interaction between identity formation and external stress. The relation between moratorium and adjustment was similarly not moderated by perceived stress. If moratorium is indeed a multifaceted construct that is not linearly associated with either of the components of adjustment, it follows that emerging adults who endorse low levels of moratorium would not be more vulnerable to maladjustment. In contrast, external stress did moderate the cross-sectional relations between identity achievement and internalizing symptoms and between identity achievement and well-being in the predicted direction. At high levels of stress, low levels of identity achievement were associated with higher levels of internalizing symptoms and lower levels of well-being. This suggests that emerging adults with low levels of identity achievement are vulnerable to high levels of perceived stress. This is consistent with previous studies that have found an association between poor identity development and both poor adjustment and depression (Rasmussen, 1964; Nelson & Barry, 2005). Individuals with inadequate ego development may have more difficulty moving towards independence and coping with

their environments, which is particularly relevant during the transition from college (Arnett, 2006; Rasmussen, 1964; Tanner, 2006). Few studies, if any, have addressed the interaction between identity formation and perceived stress; thus, the current study provides a better understanding of the impact of multiple stressors on mental health during the emerging adulthood period.

Interaction between psychosocial development and meeting expectations.

Examination of meeting expectations as a moderator did not support the hypotheses, with one exception. In longitudinal analyses, when residential expectations were not met, lower levels of identity achievement were associated with lower levels of well-being. Consistent with results from other studies, as well as previous results from the current study, lower levels of identity achievement are also predictive of higher levels of maladjustment (Rasmussen, 1964; Nelson & Barry, 2005). The absence of additional significant results may be due to how this variable was measured. Previous studies have suggested that individuals who do not meet their expectations about development or do not achieve their goals may experience themselves incompetent (Berman et al., 2006; Berry, 2004; Mortimer & Staff, 2004). Perhaps, it is not the act of actually achieving these goals that is important, but the perception of doing so. In fact, studies suggest that the perception of deviance and abnormality is a particularly important predictor of maladjustment. Additionally, research has found that while self-concept may be threatened immediately following a transition and, consequently, elicit feelings of ineffectiveness, once individuals adapt to their new role, their self-perceptions typically return to pre-transition levels (Graber & Brooks-Gunn, 1996b). The prospective

approach used in this study did not measure the perception of meeting expectations, which may account for the absence of significant moderated effects. Because there were significant main effects, it is also possible that not meeting expectations was simply a risk factor rather than a vulnerability factor. Ultimately, the pattern of results indicates that meeting expectations accounts for significant, yet unique, amount of the variance in the outcome variables.

Gender Analyses

Analyses of gender as a moderator were exploratory, with two exceptions. It was hypothesized that gender would moderate the cross-sectional and longitudinal relations between separation-individuation and the outcome variables, as well as between engulfment anxiety and the mediating variables.

Hypothesized interactions between separation-individuation and gender. Higher levels of engulfment anxiety and nurturance seeking were posited to be associated with higher levels of internalizing symptoms and lower levels of well-being for females, but not males. It was also hypothesized that males would experience higher levels of feeling “in-between” and “off time” when they experienced higher levels of engulfment anxiety. These hypotheses were not supported for nurturance seeking or engulfment anxiety. The main effect found for nurturance seeking and internalizing symptoms indicates that both males and females who become enmeshed in their interpersonal relationships are at increased risk of experiencing internalizing symptoms. Although theory suggests that the process of separation and individuation is different among adolescent males and females, recent studies have not found gender differences in the process of separation and

individuation (Chodorow, 1978; Gilligan, 1979; Goldschedier & Goldscheider, 1994; Kruse & Walper, 2008; Manttanah, Hancock, & Brand, 2004; Rice, 1992; Shanahan, 2000). One explanation for the findings from the current study is that there are no longer gender differences in this area of development, perhaps due to sociocultural changes. If during the 1960s and 1970s, women began to delay marriage and parenthood while they pursued their own careers, it is likely that the mothers of the emerging adults in the current study eschewed traditional gender roles (Arnett, 2000a; Arnett et al., 2001). It is likely that many pursued a career and, therefore, spent significantly more time outside of the home during the process of gender identification. It is possible that this would facilitate differentiation as the daughters of these women would be less likely to be inappropriately connectedness to their mothers, which may improve the likelihood of emotional adjustment. As such, gender may not differentially impact the association between separation-individuation and adjustment. In fact, when examining the results in greater detail, it became apparent that while there were not gender differences in nurturance seeking at Time 1, gender differences emerged at Time 2. At the same time, there were not differences in the levels of internalizing symptoms between males and females at Time 2. This pattern of results may be indicative of unique emphasis that women place on interpersonal relationships. That is, higher levels of nurturance seeking in females may reflect their tendency to value and maintain strong interpersonal relationships rather than higher levels of enmeshment (Lapsley et al., 1992). This theory is consistent with previous research, which has not found gender differences in the relation between

emotional separation and adjustment (Beyer & Goossens, 2003; Fuhrman & Holmbeck, 1995; Lapsley et al., 1989; Rice, 1992).

Exploratory interaction between psychosocial developmental tasks and gender.

Exploratory analyses, which were performed to examine whether gender acts as a moderator in the relations between the other developmental tasks and adjustment, and between developmental tasks and the mediating variables (physiological arousal due to stress, feeling “in between,” and feeling “off time), found no interaction effects. Rather, there was a comparable relation for males and females between the three direct relations that surfaced in the first hypothesis (i.e. between nurturance seeking and internalizing symptoms, identity achievement and internalizing symptoms, and identity achievement and well-being). These findings are consistent with studies that have found an absence of gender differences in separation-individuation and identity formation. Researchers have suggested that identity achievement, in particular, is sensitive to culture (Adams et al., 1979; Kroger, 1985; Waterman, 1982). These findings, therefore, may support the theory that males’ and females’ roles and experiences, particularly in relation to psychosocial development, have indeed become analogous during emerging adulthood (Adams et al., 1979; Goldschedier & Goldscheider, 1994; Kroger, 1985; Shanahan, 2000). This may preclude different relations for males and females with adjustment or the mediating variables.

It is also possible that the absence of an interaction between psychosocial development and gender in the prediction of adjustment is due to the similarity in the levels of internalizing symptoms and well-being. The current study is consistent with

previous studies that have found a small or nonexistent gender gap in the prevalence of depression among emerging adults relative to teenagers and adults (Lapsley et al., 1989; Galambos et al., 2006; Mirowsky, 1996; Reinherz et al., 2003). Specifically, these studies have found that as females' life experiences become more like males', they are likely to present with lower levels of depression and higher levels of well-being. This may be attributable to females acquiring more power and autonomy, or having comparable responsibilities, challenges, and opportunities, many of which are culturally influenced, from which they can obtain satisfaction as males (Galambos et al., 2006; Mirowsky, 1996). Given that when emerging adults graduate from college, males and females are likely to have similar experiences relative to work and salary, marital status and parenthood, as well as other responsibilities, it would follow that the gender gap in internalizing symptoms and well-being would diminish.

Interaction between mediators and gender. The various main effects found between the psychosocial developmental variables and the mediating variables indicate that both psychological markers and role transitions influence the perception of feeling "in-between," feeling "off time," and stress. For males and females, psychological markers (i.e., self governance and identity achievement) and role changes (i.e., separate residence) influence the perception of feeling "in-between" during emerging adulthood (Arnett, 1998, 2000, 2001). Likewise, psychological markers (i.e., self governance) affect the perception of feeling "off time" for males and females. This was also true for the relation between developmental variables (i.e. nurturance seeking and identity achievement) and stress. With the exception of nurturance seeking at Time 2, there were

no gender differences in any of the predictor or outcome variables. This provides additional evidence that during late emerging adulthood, the experience of males and females have become markedly similar (Goldscheider & Goldscheider, 1994; Shanahan, 2000). As suggested previously, higher levels of nurturance seeking in females may simply be indicative of the greater importance placed on interpersonal relationships and not indicative of maladaptive relationships with parents. As such, it would not produce higher levels of stress in females than males, which is supported by the absence of gender differences in stress.

Limitations and Strengths

Some limiting factors in this study should be noted. First, similar to prior research in this area, this sample included solely students enrolled in a university and those who recently graduated from a university. Although one goal of the current study was to expand on existing research, which has been conducted with college students, the results may not generalize to individuals who are not or were never enrolled in college. Because college provides a time for extended exploration of adult roles, the findings may not be applicable to those emerging adults of the same age who have not pursued a college education and have had less opportunity for exploration of adult roles after adolescence. Second, the ethnic and racial composition of the study did not reflect that of either university, as it was less diverse, which may limit the extent to which the findings apply to others in this population. Third, due to the small number of males in the study, the lack of significant gender differences cannot be generalized. Fourth, institutional restrictions in the initial recruitment process imposed limitations on sample size and

recruitment rate. Finally, the lack of face-to-face contact during the assessment and recruitment process may have affected participants' investment in the project.

Specifically, fewer participants' may have participated initially. This may have also accounted for the large attrition rate between Time 1 and Time 2.

The present study also included several theoretical and methodological strengths. First, research that has examined the construct of emerging adulthood has focused primarily on how emerging adulthood is distinct from other developmental stages and little was known about the developmental nature of the stage itself. This study addressed that gap and provided quantitative information about multiple components of psychosocial development during the emerging adulthood period. Second, previous studies of emerging adulthood and psychosocial development have primarily included freshman and sophomore college students. The present study provided new evidence that these tasks are also relevant to older emerging adults as it provides support for the theory that critical psychosocial development continues into the early twenties. Third, while earlier studies of psychosocial development in emerging adulthood have typically been cross-sectional, the current study provides longitudinal evidence for the dynamic nature of this period. Fourth, whereas previous studies have focused on external predictors of adjustment during emerging adulthood, this study provides new evidence that development of specific internal processes also predicts internalizing symptoms and may need to be considered in the treatment of individuals in this age group. Fifth, the present study examined possible gender differences in psychosocial development during the emerging adulthood period. Finally, this study tried to expand on previous research,

which has primarily examined differences in psychosocial tasks and whether these differences predict adjustment. In particular, the current study considered multiple components of several intrapsychic and extrapsychic psychosocial developmental tasks as predictors of adjustment. It also examined various factors that might account for the relation between psychosocial development and adjustment, as well as possible risk factors that might make some emerging adults particularly susceptible to maladjustment during this period.

Future Directions

Future research would benefit from expansion of the current study. In particular, forthcoming studies would be enhanced by the inclusion of individuals of the same age who have not pursued a college education and are of more diverse socioeconomic backgrounds, as well as persons of more diverse cultural, racial, and ethnic groups. Research would also be improved by the inclusion of a greater number of males in the study. This could generate a better understanding of the extrapsychic and intrapsychic influences on emotional adjustment during this time.

Additionally, given the dynamic nature of emerging adulthood and psychosocial development, future research may further benefit from more frequent assessments over a longer period of time (e.g. 18 to 25 or 18 to 30 years of age) to capture these ongoing changes. More frequent data collection also may be complemented by the use of measures that capture the complexity of the developmental tasks (e.g. both depth and breadth of identity exploration by considering individual areas of identity formation,

nature of the parent-child relationship, objective measures of development and perceptions of development).

Finally, a larger sample size and the use of other methods of recruitment and assessment would also enrich future studies. In particular, face-to-face methods of recruitment may increase the number of individuals who participate and decrease attrition rates. Assessments conducted in person, rather than online, may also allow researchers to develop a relationship with participants such that the participants are more invested in the research and more likely to participate over a long period of time. The use of multiple informants would also benefit future research. In particular, collection of parent report may provide a richer, more complete understanding of the relations among development, stressors, and adjustment in emerging adults.

Implications

The current study adds to previous research, as it examined psychosocial development during the latter part of the emerging adulthood period. The findings indicate that psychosocial development does indeed continue into late emerging adulthood. Additionally, given that few studies had examined the reason for higher levels of internalizing symptoms among emerging adults relative to other age groups, the current study provides new information about psychosocial developmental predictors of internalizing symptoms and well-being during this developmental stage. It also provides information about the mechanism for the relation between psychosocial development and adjustment, as well as factors that increase vulnerability to maladjustment during emerging adulthood. Specifically, problems in separation-individuation and identity

formation after college are associated with stress and maladjustment, and external stress and not meeting residential expectations are vulnerability factors. This study also presents additional evidence that gender differences in internalizing symptoms diminish, or even disappear, during emerging adulthood.

Cumulatively, the findings suggest that emerging adults may need more support and guidance than they currently receive from their universities and families to foster healthy functioning after college. The present study, therefore, contributes information that may be useful to college counseling centers, as well as to individuals who work with graduating seniors and recent college graduates. The findings indicate that there are significant changes in psychosocial development during the transition from college. Despite acquiring more independence and responsibility, emerging adults who have recently graduated from college may continue to not feel like adults. This collective body of information can potentially enhance the current understanding of how college seniors experience the transition from college. It may also improve the accuracy of the perception of distress among college students who are about to graduate as well as among recent graduates. Further, it may enable therapists to more effectively gear treatment to support healthy development and address the stressors that individuals in this age group experience. For example, individuals who provide support services to this population of emerging adults may want to encourage them to remain connected with their families while they develop increasing autonomy, as well as explore consider issues of identity. Although some individuals may naturally be able to realize this balance of separateness and connectedness, others may require assistance and support from therapists about how

to do this. Additionally, emerging adults may need support as they explore and develop their own worldviews and values, and pursue long-term occupation, friendships, and romantic relationships, which are separate from that of their parents.

The findings also reveal that emerging adults experience significant increases in stress and internalizing symptoms after graduating from college. Consequently, it would be helpful to consider possible tools that could be implemented during college to prevent maladjustment after college. For example, in order to promote successful adjustment, many colleges and universities now offer courses specifically for incoming freshman that address issues that may arise during the transition to college. It may be beneficial to offer an analogous course for graduating seniors in which issues associated with transition from college, as well as ways to effectively cope with these issues could be discussed. Additionally, when this population seeks mental health services for internalizing symptoms, it may be helpful to consider possible developmental factors in addition to other intrapersonal and environmental causes. Recognition of the various developmental, intrapersonal, and external stressors may allow for more directed and effective therapy.

The findings may also be useful to individuals who provide mental health services to parents and families. Many parents of college graduates believe that their children are adults and, therefore, have expectations of them that reflect these beliefs. While the findings indicate increases in autonomy between college and post-college, there continues to be significant emotional dependency on parents. This discrepancy between functional and emotional independence may lead to confusion for emerging adults and their parents, as well as cause conflict between them. Parents may be uncertain about

whether they should encourage their children to achieve a more independent life style or whether they should allow their child to acquire independence more gradually (Cohen et al., 1003). The understanding that to achieve healthy functioning emerging adults requires a balance of autonomy and connectedness with their parents may inform individual and family therapy with this population. Therapists can educate parents about development during emerging adulthood and help parents form developmentally appropriate expectations of their emerging adult children, which may, consequently, reduce conflict. Moreover, given that identity achievement was consistently a significant predictor of adjustment, it may be useful for therapists to guide parents to support their children in the process of healthy identity exploration so that the experience is not overwhelming.

Finally, it may be useful for therapists to educate emerging adults and their parents about stress during this period and normalize it so that it does not have such a significant impact on mental health. If emerging adults believe that their experience is natural, they may be more likely to seek support when needed. It may also sensitize parents to their child's experience so that they can provide necessary emotional and functional support. Ultimately, the findings of the current study should inform our understanding and expectations of older emerging adults so that they are provided with appropriate resources and support as they assume roles and responsibilities for which they may or may not be ready.

APPENDIX A:
RECRUITMENT MATERIAL

Electronic Mail to Faculty

Dear faculty member,

My name is Jennifer Edidin and I am a graduate student in clinical psychology. I am conducting a research project for my Master's thesis on emerging adults (individuals between the ages of 18 and 25 years of age). My study will examine the relation between psychosocial development and emotional distress in older emerging adults, specifically individuals in their senior year of college.

In order to recruit these individuals, I am asking faculty members who teach upper level courses with seniors for their assistance. I would like permission to distribute flyers that: invite students to participate in the study, provide them with a brief description of its nature, and provide them with a web address to access the survey. I could do this in whatever way is most convenient and least disruptive for you: directly distributing informational handout to students at the beginning or end of a class period, providing you with a stack of handouts to distribute, or finding alternative means to disseminate the information.

If you are willing to allow me to recruit senior students in your class, you may contact me at (773) 508-3005 or jedidin@luc.edu.

Your time and help is greatly appreciated.

Sincerely,

Jennifer Edidin

Student Handout at Loyola University

Dear senior,

My name is Jennifer Edidin and I am a graduate student in clinical psychology. I am conducting a research project for my Master's thesis on emerging adults (individuals between the ages of 18 and 25 years of age). This research is interested in the relation between psychosocial development (e.g. autonomy development) and emotional distress in emerging adults, specifically individuals in their senior year of college.

You must be a senior in college (i.e. eligible for degree conferral by December 2006) in order to participate in this study. Interested students will be asked to go to the web address below and click on the hyperlink, which will send you to an online survey. Before participating, you would be asked to read and sign a consent form. You would then be asked to respond to a series of statements about your beliefs, behaviors, relationships with others, and feelings. Persons who choose to participate in the study will have the option of being entered into a drawing for two \$50 gift certificates for Fandango.

This is solely an invitation to participate in the study and your participation is completely voluntary. Faculty will not be informed of your participation, nor will your grade be affected by your decision. If you are interested in taking part in the study or would like to learn more about it, please go the following web address:

<http://homepages.luc.edu/~jedidin>

and click on the link to the survey. Please feel free to pass this handout to other seniors who might be interested in the project.

Your time is greatly appreciated.

Sincerely,

Jennifer Edidin

Dear senior,

My name is Jennifer Edidin ('98) and I am a graduate student in clinical psychology at **Loyola University Chicago**. I am conducting a research project for my Master's thesis on emerging adults (individuals between the ages of 18 and 25 years of age). This research is interested in the relation between psychosocial development (e.g. autonomy development) and emotional distress in emerging adults, specifically individuals in their senior year of college.

You must be a senior in college (i.e. eligible for degree conferral by December 2006) in order to participate in this study. Interested students will be asked to go to the web address below and click on the hyperlink, which will send you to an online survey. Before participating, you would be asked to read and sign a consent form. You would then be asked to respond to a series of statements about your beliefs, behaviors, relationships with others, and feelings. Persons who choose to participate in the study will have the option of being entered into a drawing for two \$50 gift certificates for Fandango.

This is solely an invitation to participate in the study and your participation is completely voluntary. Faculty will not be informed of your participation, nor will your grade be affected by your decision. If you are interested in taking part in the study or would like to learn more about it, please go the following web address:

<http://homepages.luc.edu/~jedidin>

and click on the link to the survey. Please feel free to pass this handout to other seniors who might be interested in the project.

Your time is greatly appreciated.

Sincerely,

Jennifer Edidin

APPENDIX B:
CONSENT, DEBRIEFING, AND COMPENSATION FORMS

Informed Consent

Dear Participant:

Thank you for your interest in this study. In order to participate, you must be at least 18 years old and a college senior.

Purpose: This research is interested in understanding the relation among psychosocial development (e.g. autonomy development), individuals' self-perceptions of their adult status, and emotional distress during the emerging adulthood age period (ages 18 – 25). The current study is being conducted by Jennifer Edidin, a graduate student in Clinical Psychology at Loyola University Chicago, and supervised by Dr. Noni Gaylord-Harden, a faculty member in the Psychology Department. Your participation in the research project is voluntary and you may withdraw from it at any time. We ask that you carefully read through the following information before agreeing to be a part of this research project.

Procedure: If you choose to participate, you will be presented with a series of online surveys, which include statements regarding your beliefs, behaviors, relationships with others, and feelings. Specific directions for each survey are located at the top of the page, before the statements. At the end of your participation, you will be presented with a brief description of the study and any questions you may have will be answered. The study will last approximately 30 minutes. Once the study is complete, your e-mails will be kept on file and you may be contacted for a follow-up study.

By selecting the “yes” box below, you are indicating that you are 18 years of age or older and a college senior, have read this consent form, and agree to participate in the following study. If you do not wish to participate in this study or be contacted for future research, please select the “no” box.

Risks: The risks associated with this study are limited to possible discomfort associated with some statements. If you are uncomfortable responding to a statement, you have the right to skip questions or withdraw from participation in this study at any time without prejudice or penalty.

Benefits: Although the study will provide little direct benefit to you, you may gain insight into personal beliefs, behaviors, and feeling about your development. Additionally, this study could provide a better understanding of psychosocial development during this period, which could prove valuable in developing interventions.

Compensation: For your participation, you will be entered into a lottery (if you choose) in which you will be eligible to win one of two \$50 gift certificates for Fandango. The lottery will be conducted upon completion of data collection. At the end of the survey, you will have the opportunity to check a box indicating either “yes,” you would like to

participate in the lottery, or “no,” you would not like to be entered into the drawing. If you check the “yes” box and win, the gift certificate will be sent to the e-mail address that you provided.

Confidentiality: We will protect the privacy of those who participate in the research study. No identifying information will be shared with anyone who is not connected with the research project. To protect the confidentiality of your responses, your responses will be password protected so that only the researcher on this project will have access to them. Additionally, after data collection is complete, your e-mail address will be kept separately from your responses. Information presented at research conferences or for publication will not identify any individuals who participated.

Additional Information: If you have any questions regarding your rights as a research participant, please feel free to contact Loyola’s Compliance Manager at (773) 508-2689. Also, if you have any questions about the study, please feel free to contact the primary investigator, Jennifer Edidin at (773) 508-3005 or jedidin@luc.edu, or the faculty advisor of the project, Dr. Noni Gaylord-Harden, at (773) 508-2986 or ngaylor@luc.edu.

Do you consent to participate?*

Yes No

Debriefing Form

Dear Participant,

Thank you for participating in this experiment.

It has been assumed that most people complete their psychosocial development (e.g. identity and autonomy development) by about 18 years of age; however, recent research in sociology and psychology suggests that this may not necessarily be the case. Recent studies indicate that there is a developmental stage between 18 and 25 years of age, “Emerging Adulthood,” when individuals continue to their psychosocial development. That is, they continue to form their identity and worldviews and do not feel like adolescents or like adults. Other studies also indicate that many individuals during the period are at risk for developing depressive and anxious symptoms

The objective of this study is to determine whether psychosocial development is related to emotional distress and well-being in emerging adults and whether these factors are related to feeling between adolescence and adulthood. In other words, the purpose of this study is to determine whether psychosocial developmental factors, such as identity and autonomy development, in the last year of college, might put emerging adults at risk for depression and anxiety in the year after college. The results of this study may help provide a better understanding of emerging adults and, ultimately, could prove useful in developing interventions for individuals experiencing emotional distress during this age period.

If you have any questions regarding your rights as a research participant, please feel free to contact Loyola’s Compliance Manager at (773) 508-2689. Also, if you have any questions about the study, please feel free to contact the primary investigator of the project, Jennifer Edidin at (773) 508-3005, or the faculty advisor to this project, Dr. Noni Gaylord-Harden, at (773) 508-2986.

If you are experiencing any emotional discomfort and would like to speak with someone in greater detail, you may contact the Wellness Center at Loyola University at (773) 508-2530. If you are concerned about your future and would like some guidance, you may contact the University Internship and Career Center at (773) 508-2874.

Compensation

1. Would you like your name to be entered into a lottery to receive an iPod Nano?*

Yes No

2. If you answered “yes,” please provide an email address at which you can be notified:

APPENDIX C:
INSTRUMENTS

SITA: Separation-Individuation Test of Adolescence

Listed below are a number of statements which describe various feelings, attitudes, and behaviors that people have about their relationships with others. Read each statement and then check the box that corresponds to the letter that best reflects the extent to which:

- A = the statement is *always true* for you or you *strongly agree* with it
- B = if the statement is *usually true* for you or you *generally agree* with it
- C = if the statement is *sometimes true* for you or you *slightly agree* with it
- D = if the statement is *hardly ever true* for you or you *generally disagree* with it
- E = if the statement is *never true* for you or you *strongly disagree* with it

1. Sometimes my parents are so overprotective I feel smothered.
2. I can't wait for the day that I can live on my own and am free from my parents.
3. Most parents are over-controlling and don't really want their children to grow up.
4. Sometimes I think how nice it was to be a young child when someone else took care of my needs.
5. I often feel lonely when I'm away from my parents for any extended period of time.
6. I often feel rebellious toward things my parents tell me to do.
7. I believe that God looks over me and protects me from danger.
8. It's quite a struggle for me to be a person independent from my parents.
9. My parents keep close tabs on my whereabouts.
10. I feel my parents' rules restrict my freedom too much.
11. There is a sense of interconnectedness that links people of all kinds together.
12. God knows my life, I will go where he leads me.
13. I preferred the younger years of life when I could rely on my parents for guidance to get along.
14. I would like to always live in the same town as my parents and siblings so we could spend a lot of time together.
15. I am greatly looking forward to getting out from under the rule of my parents.

HLCS: Home Leaving Cognition Scale (Revised)

Leaving home, or separating from parents, and becoming an adult means different things to different people. Below are issues related to home leaving and becoming an adult. Please check the box that corresponds to the degree to which the statement reflects your current situation.

Does not apply to me at all		Somewhat applies applies to me			Applies to me very much	
1	2	3	4	5	6	7

1. I feel like an adult.
2. I am independent.
3. I have a job.
4. I no longer receive financial support from my family.
5. I have to take care of myself (e.g. cook, laundry, etc.).
6. I make my own money.
7. I go back home each summer.
8. I have moved into an apartment.
9. I do not go home as often.
10. I feel mature enough.
11. I have to do things for myself.
12. I am financially independent.
13. I make my own decisions.

Revised Version of the EOM-EIS

Read each item and indicate to what degree it reflects your own thoughts and feelings. If a statement has more than one part, please indicate your reaction to the statement as a whole. Indicate your answer by choosing one of the following responses and checking the corresponding box.

- A = strongly agree
- B = moderately agree
- C = agree
- D = disagree
- E = moderately disagree
- F = strongly disagree

1. There are a lot of different kinds of people. I'm still exploring the many possibilities to find the right kind of friends for me.
2. Politics is something that I can never be too sure about because things change so fast. But I do think it's important to know what I can politically stand for and what I believe in.
3. I'm still trying to decide how capable I am as a person and what jobs will be right for me.
4. There's so many ways to divide responsibilities in marriage, I'm trying to decide what will work for me.
5. I'm looking for an acceptable perspective for my own "life style" view, but I haven't really found it yet.
6. There are many reasons for friendship, but I choose my close friends on the basis of certain values and similarities that I've personally decided on.
7. While I don't have one recreational activity that I am really committed to, I'm experiencing numerous leisure outlets to identify one I can really get involved in.
8. Based on past experiences, I've chosen the type of dating relationship I want now.
9. A person's faith is unique to each individual. I've considered and reconsidered it myself and know what I can believe.
10. After considerable thought I've developed my own individual viewpoint of what for me is an ideal "lifestyle" and don't believe anyone will be likely to change my perspective.
11. I've chosen one or more recreational activities to engage in regularly from lots of things and I'm satisfied with those choices.
12. I'm not sure what religion means to me. I'd like to make up my mind but I'm not done looking yet.

13. I'm trying out different kinds of dating relationships. I just haven't decided what is best for me.
14. There are so many different political parties and ideals. I can't decide which to follow until I figure it all out.
15. It took me a while to figure it out, but now I really know what I want for a career.
16. Religion is confusing to me right now. I keep changing my views on what is right and wrong for me.
17. I've spent some time thinking about men's and women's roles in marriage and I've decided what will work best for me.
18. In finding an acceptable viewpoint to life itself, I find myself engaging in a lot of discussions with others and some self-exploration.
19. I've thought my political beliefs through and realize I can agree with some and not other aspects of what my parents believe.
20. I've gone through a period of serious questions about faith and can now say I understand what I believe in as an individual.
21. I've been thinking about the roles that husbands and wives play a lot these days, and I'm trying to make a final decision.
22. I've tried many different friendships and now I have a clear idea of what I look for in a friend.
23. After trying a lot of different recreational activities I've found one or more I really enjoy doing by myself or with friends.
24. My preferences about dating are still in the process of developing. I haven't fully decided yet.
25. I'm not sure about my political beliefs, but I'm trying to figure out what I truly can believe in.
26. It took me a long time to decide but now I know for sure what direction to move in for a career.
27. There are many ways that married couples can divide up family responsibilities. I've thought about lots of ways and now I know exactly how I want it to happen for me.
28. I've been experiencing a variety of recreational activities in hopes of finding one or more I can enjoy for some time to come.
29. I've dated different types of people and now know exactly what my own "unwritten rules" for dating are and who I will date,
30. I just can't decide what to do for an occupation. There are so many that have possibilities.
31. After a lot of self-examination I have established a very definite view on what my own life style will be.

32. I really don't know what kind of friend is best for me. I'm trying to figure out exactly what friendship means to me.

Views of Life Survey
Feeling “In –Between”

First, please think about this time in your life. For each phrase below, please place a check mark in the box that reflects the degree to which you agree or disagree that the phrase describes this time in your life.

- 1 = Strongly disagree
- 2 = Somewhat disagree
- 3 = Somewhat agree
- 4 = Strongly agree

1. Time of feeling adult in some ways but not others?
2. Time of feeling adolescent in some ways but not others?
3. Time of gradually becoming an adult?
4. Time of being not sure whether you have reached full adulthood?
5. Time of being not sure whether you have left adolescence?
6. Please place a check mark in the box that reflects the degree to which you feel like an adolescent or an adult?
 - 1 = I feel completely like an adolescent
 - 2 = I feel like an adult in some ways, but I feel mostly like an adolescent.
 - 3 = I feel in-between adolescence and adulthood.
 - 4 = I feel like an adolescent in some ways, but I feel mostly like an adult.
 - 5 = I feel completely like an adult.

Note: At Time 1, only the first three items were used.

DASS: Depression, Anxiety, and Stress Scale

Please read each statement and check the box corresponding to the number 0, 1, 2, or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

0 = Did not apply to me at all

1 = Applied to me to some degree, or some of the time

2 = Applied to me to a considerable degree, or a good part of the time

3 = Applied to me very much or most of the time

1. I found it hard to wind down.
2. I was aware of dryness in my mouth.
3. I couldn't seem to experience any positive feeling at all.
4. I experienced breathing difficulty (e.g. excessively rapid breathing, breathless in the absence of physical exertion).
5. I found it difficult to work up the initiative to do things.
6. I tended to overreact to situations.
7. I experienced trembling (e.g. legs going to give way).
8. I felt that I was using a lot of nervous energy.
9. I was worried about situations in which I might panic and make a fool of myself.
10. I felt that I had nothing to look forward to.
11. I found myself getting agitated.
12. I found it difficult to relax.
13. I felt down-hearted and blue.
14. I was intolerant of anything that kept me from getting on with what I was doing.
15. I was close to panic
16. I was unable to become enthusiastic about anything.
17. I felt that I wasn't worth much as a person.
18. I felt that I was rather touchy.
19. I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat).
20. I felt scared without any good reason.
21. I felt that life was meaningless.

PSS: Perceived Stress Scale

1. In the last month, how often have you been upset because of something that happened unexpectedly?
0) never 1) almost never 2) sometimes 3) fairly often 4) very often
2. In the last month, how often have you felt that you were unable to control important things in your life?
0) never 1) almost never 2) sometimes 3) fairly often 4) very often
3. In the last month, how often have you felt nervous and “stressed”?
0) never 1) almost never 2) sometimes 3) fairly often 4) very often
4. In the last month, how often have you felt confident about your ability to handle your personal problems?
0) never 1) almost never 2) sometimes 3) fairly often 4) very often
5. In the last month, how often have you felt that things were going your way?
0) never 1) almost never 2) sometimes 3) fairly often 4) very often
6. In the last month, how often have you found that you could not cope with the things that you had to do?
0) never 1) almost never 2) sometimes 3) fairly often 4) very often
7. In the last month, how often have you been able to control irritations in your life?
0) never 1) almost never 2) sometimes 3) fairly often 4) very often
8. In the last month, how often have you felt that you were on top of things?
0) never 1) almost never 2) sometimes 3) fairly often 4) very often
9. In the last month, how often have you been angered because things that were outside of your control?
0) never 1) almost never 2) sometimes 3) fairly often 4) very often
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?
0) never 1) almost never 2) sometimes 3) fairly often 4) very often

Well-Being

(Affect)

Focus on feelings during the past 6 months to answer the following questions.

1. Did you feel particularly excited or interested in something?
Yes, No
2. Proud because someone complimented you on something you had done?
Yes, No
3. Pleased about having accomplished something?
Yes, No
4. On top of the world?
Yes, No
5. That things were going your way?
Yes, No
6. Did you feel so restless that you couldn't sit long in a chair?
Yes, No
7. Very lonely or remote from other people?
Yes, No
8. Bored?
Yes, No
9. Depressed or very unhappy?
Yes, No
10. Upset because someone criticized you?
Yes, No

(Strain)

1.
 - a. Do you ever have trouble getting to sleep or staying asleep?
Never, not very much, pretty often, nearly all the time
 - b. Have you ever been bothered by nervousness, feeling fidgety, and tense?
Never, not very much, pretty often, nearly all the time
 - c. Are you ever troubled by headaches and pains?
Never, not very much, pretty often, nearly all the time
 - d. Do you have a loss of appetite?
Never, not very much, pretty often, nearly all the time
 - e. How often are you bothered by having an upset stomach?
Never, not very much, pretty often, nearly all the time
2.
 - a. Do you find it difficult to get up in the morning?
Never, not very much, pretty often, nearly all the time
 - b. Are you troubled by your hands sweating so that you feel damp and clammy?
Never, not very much, pretty often, nearly all the time

3. a. Do you feel you are bothered by all sorts of pains and ailments in parts of your body?

No, Yes

b. For the most part, do you feel healthy enough to carry out the things that you would like to do?

No, Yes

c. Do you have any particular health problems?

No, Yes

d. Has any ill health affected the amount of work you do?

Never, not very much, pretty often, nearly all the time

e. Have you ever been bothered by shortness of breath?

Never, not very much, pretty often, nearly all the time

f. Have you ever been bothered by your heart beating hard?

Never, not very much, pretty often, nearly all the time

4. When you feel worried, tense, or nervous, do you ever take medications or drugs to help you handle things?

Never, not very much, pretty often, nearly all the time

5. a. When you feel worried, tense, or nervous, do you ever drink alcoholic beverages to help you handle things?

Never, not very much, pretty often, nearly all the time

b. Have there ever been problems between you and anyone in your family (spouse, parent, or other close relative) because you drank alcoholic beverages?

Never, not very much, pretty often, nearly all the time

(Satisfaction with Life)

Using the 1-7 scale below, indicate your agreement with each item. Please be open and honest in your responding.

1 = Strongly disagree

2 = Disagree

3 = Slightly disagree

4 = Neither disagree and agree

5 = Slightly agree

6 = Agree

7 = Strongly agree

1. In most ways life is close to my ideal.

2. The conditions of my life are excellent.

3. I am satisfied with my life.

4. So far I have gotten the important things I want in life.
5. If I could live my life over, I could change almost nothing.

Feeling “Off Time”

Relative to my peers, I feel that they are

- 1 = ahead of where I am in the process of becoming an adult.
- 2 = in the same place as I am.
- 3 = behind where I am in the process of becoming an adult.

REFERENCE LIST

- Adams, G. R., Shea, J. A., & Fitch, S. A. (1979). Toward the development of an objective assessment of ego-identity status. *Journal of Youth and Adolescence*, 8, 223-237.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage Publications.
- Amada, G., & Grayson, P. A. (1988). Anxiety. In P.A. Grayson & K. Cauley (Eds.), *College psychotherapy* (pp. 159-165). New York: Guilford Press.
- American Psychiatric Association. (2000). *DSM-IV-TR*. Washington, DC: APA.
- Anderson, S. A., & Fleming, W. M. (1986). Late adolescents' home-leaving strategies: Predicting ego identity and college adjustment. *Adolescence*, 21, 453-459.
- Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological Assessment*, 10, 176-181.
- Arnett, J. J. (1997). Young people's conceptions of the transition to adulthood. *Youth and Society*, 29, 3-23.
- Arnett, J. J. (1998). Learning to stand alone: The contemporary American transition to adulthood in cultural and historical context. *Human Development*, 41, 295-315.
- Arnett, J. J. (1999). Adolescent storm and stress, reconsidered. *American Psychologist*, 54, 317-326.
- Arnett, J. J. (2000a). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 5, 469-480.
- Arnett, J. J. (2000b). High hopes in a grim world: Emerging adults' view of their futures and "Generation X." *Youth and Society*, 31, 267-286.
- Arnett, J. J. (2001). Conceptions of the transition to adulthood: Perspectives from adolescence through midlife. *Journal of Adult Development*, 8, 133-143.
- Arnett, J. J. (2004) *Emerging adulthood: The winding road from the late teens though the twenties*. New York, NY: Oxford University Press.

- Arnett, J. J. (2006). The psychology of emerging adulthood: What is known, and what remains to be known? In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 303-330). Washington, DC: American Psychological Association.
- Arnett, J. J., & Taber, S. (1994). Adolescence terminable and interminable: when does adolescence end? *Journal of Youth and Adolescence, 23*, 517-537.
- Arnett, J. J., Ramos, K. D., & Jensen, L. A. (2001). Ideological views in emerging adulthood: Balancing autonomy and community. *Journal of Adult Development, 8*, 69-79.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Bennion, L. D., & Adams, G. R. (1986). A revision of the extended version of the objective measure of ego identity status: An identity instrument for use with late adolescents. *Journal of Adolescent Research, 1*, 183-198.
- Berman, S. L., Weems, C. F., & Stickle, T. R. (2006). Existential anxiety in adolescents: Prevalence, structure, association with psychological symptoms and identity development. *Journal of Youth and Adolescence, 35*, 303-310.
- Berry, D. (2004). The relationship between depression and emerging adulthood. *Advances in Nursing Science, 27*, 53-69.
- Beyer, W., & Goossens, L. (2003). Psychological separation and adjustment to university: Moderating effects of gender, age, and perceived parenting style. *Journal of Adolescent Research, 18*, 363-382.
- Blatt, S. J., & Homann, E. (1992). Parent-child interaction in the etiology of dependent and self-critical depression. *Clinical Psychology Review, 12*, 47-91.
- Blos, P. (1967). The second individuation. *The psychoanalytic study of the child, 22*, 162-186.
- Blos, P. (1979). *The Adolescent Passage*. International Universities Press, New York.
- Blustein, D. L., Devenis, L. B., & Kidney, B. A. (1989). Relationship between the identity formation process and career development. *Journal of Counseling Psychology, 36*, 196-202.
- Blustein, D. L., & Phillips, S. D. (1990). Relation between ego identity statuses and decision-making styles. *Journal of Counseling Psychology, 37*, 160-168.

- Borgen, W. A., Amundson, N. E., & Tench, E. (1996). Psychological well-being throughout the transition from adolescence to adulthood. *Career Development Quarterly, 45*, 189-199.
- Bradburn, N. (1969). Two Dimensions of Psychological Well-Being: Positive and Negative Affect. In *The Structure of Psychological Well-being* (pp. 53-70). Oxford, England: Aldine.
- Bryant, F. B., & Yarnold, P. R. (1990). The impact of Type A behavior on subjective life quality: Bad for the heart, good for the soul? *Journal of Social Behavior and Personality, 5*, 369-404.
- Bryant, F. B., & Versoff, J. (1984). Dimensions of subjective mental health in American men and women. *Journal of Health and Social Behavior, 25*, 116-135.
- Bynner, J., Ferri, E. , & Shepherd, P. (1997). Changing lives in the 1990s. In J. Bynner, E. Ferri, & P. Shepherd (Eds.), *Twenty-something in the 1990s* (pp. 1-10). Brookfield, USA: Ashgate.
- Casper, L. M., Cohen, P. N., & Simmons, T. (1999, May). How does POSSLQ measure up? Historical estimates of cohabitation. Retrieved August 29, 2005, from <http://www.census.gov/population/www/documentation/twps0036/twps0036.html>
- Chodorow, N. (1978). *The reproduction of mothering*. Berkeley, CA: University of California Press.
- Cohen, P., Kasen, S., Chen, H., Hartmark, C., & Gordon, K. (2003). Variations in patterns of developmental transitions in the emerging adulthood period. *Developmental Psychology, 39*, 657-669.
- Cohen, S., & Williamson, G. M. (1988) Perceived stress in a probability sample in the United States. In S. Spacapan & S. Oskamp (Eds.), *The Social Psychology of Health*. Thousand Oaks, CA: Sage.
- Cohen, S., Kamarck, T., Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 385-396.
- Colarusso, C. A. (1990). The third individuation: The effect of biological parenthood on separation-individuation processes in adulthood. *Psychoanalytic Study of the Child, 45*, 179-194.
- Cooper, C. R., & Grotevant, H. D. (1987). Gender issues in the interface of family experience and adolescents' friendship and dating identity. *Journal of Youth and Adolescence, 16*, 247-264.

- Costello, E. J., Egger, H. L., & Angold, A. (2005). The developmental epidemiology of anxiety disorders: Phenomenology, prevalence, and comorbidity. *Child and Adolescent Psychiatric Clinics of North America*, *14*, 631-648.
- Cowan, P. A. (1991). Individual and family life transitions: A proposal for a new definition. In Cowan, P. A. & Hetherington, E. M. (Eds.), *Family Transitions* (pp. 3-30). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Coyne, J., Kahn, J., & Gotlib, I. (1987). Depression. In T. Jacob (Ed.), *Family Interaction and Psychopathology: Theories, Methods, and Findings* (pp. 509-533). New York: Plenum Press.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*, 71-75.
- Diener, E., Suh, E., & Oishi, S. (1997). Recent findings on subjective well-being. *Indian Journal of Clinical Psychology*, *24*, 25-41.
- Dubas, J. S., & Petersen, A. C. (1996). Geographical distance from parents and adjustment during adolescence and young adulthood. *Directions for Child Development*, *71*, 3-20.
- Eberhart, N. K., & Hammen, C. L. (2006). Interpersonal predictors of onset of depression during the transition to adulthood. *Personal Relationships*, *13*, 195-206.
- Edidin, J. P., & Gaylord-Harden, N. K. (2009). Psychosocial development and internalizing symptoms in emerging adulthood. Manuscript in preparation.
- Erikson, E. H. (1959). Identity and life cycle: Selected papers. *Psychological Issues*, *1*, 1-171.
- Erikson, E. H. (1963). *Childhood and society*. New York: Norton.
- Erikson, E. H. (1994). *Identity: Youth and crisis*. New York: Norton.
- Flanagann, C., Schulenberg, J., & Fuligni, A. (1993). Residential setting and parent-adolescent relationships during the college years. *Journal of Youth and Adolescence*, *22*, 171-189.
- Fuhrman, T., & Holmbeck, G. N. (1995). A contextual-moderator analysis of emotional autonomy and adjustment in adolescence. *Child Development*, *66*, 793-811.
- Galambos, N. L., Barker, E. T., & Krahn, H. J. (2006). Depression, self-esteem, and anger in emerging adulthood: Seven-year trajectories. *Developmental Psychology*, *42*, 350-365.

- Galambos, N. L., Turner, P. K., & Tilton-Weaver, L. C. (2005). Chronological and subjective age in emerging adulthood: The crossover effect. *Journal of Adolescent Research, 20*, 538-556.
- Garber, J., Keiley, M. K., & Martin, N. C. (2002). Developmental trajectories of adolescents' depressive symptoms: Predictors of change. *Journal of Consulting and Clinical Psychology, 70*, 79-95.
- Gavazzi, S. M., & Sabatelli, R. M. (1990). Family system dynamics, the individuation process, and psychosocial development. *Journal of Adolescent Research, 5*, 500-519.
- Ge, X., Lorenz, F. O., Conger, R. D., & Elder, G. H. (1994). Trajectories of stressful life events and depressive symptoms during adolescence. *Developmental Psychology, 30*, 467-483.
- Gilligan, C. (1979). Woman's place in man's life cycle. *Harvard Educational Review, 49*, 431-446.
- Gilligan, C. (1982). *In A Different Voice*. Cambridge, MA: Harvard University Press.
- Goldscheider, F. K., & Davano, J. (1986). Semiautonomy and leaving home in early adulthood. *Social Forces, 65*, 187-201.
- Goldscheider, F., & Goldscheider, C. (1994). Leaving and returning home in 20th century America. *Population Bulletin, 48*, 1-35.
- Gottlieb, B. H., Still, E., & Newby-Clark, I. R. (2007). Types and precipitants of growth and decline in emerging adulthood. *Journal of Adolescent Research, 22*, 132-155.
- Graber, J. A., & Brooks-Gunn, J. (1996a). Expectations for and precursors to leaving home in young women. *Directions for Child Development, 71*, 21-38.
- Graber, J. A., & Brooks-Gunn, J. (1996b). Transitions and turning points: Navigating the passage from childhood through adolescence. *Developmental Psychology, 32*, 768-776.
- Gurevitz Stern, G. (2004). Emerging adulthood: A developmental stage? A study of identity development in emerging adulthood (Doctoral Dissertation, Long Island University, 2004). *Dissertation Abstracts International: Section B: The Sciences & Engineering, 65*, 1548.
- Gutman, L. M., & Sameroff, A. J. (2004). Continuities in depression from adolescence to young adulthood: Contrasting ecological influences. *Development and Psychopathology, 16*, 967-984.

- Hammen, C. (1991). Generation of Stress in the course of unipolar depression. *Journal of Abnormal Psychology, 100*, 555-561.
- Hoffman, J. A., & Weiss B. (1987). Family dynamics and presenting problems in college students. *Journal of Counseling Psychology, 34*, 157-163.
- Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology, 65*, 599-610.
- Holmbeck, G. N. (2002). Post-hoc probing of significant moderational and mediational effects in studies of pediatric populations. *Journal of Pediatric Psychology, 27*, 87-96.
- Holmbeck, G. N., & Leake, C. (1999). Separation-individuation and psychological adjustment in late adolescence. *Journal of Youth and Adolescence, 28*, 563-581.
- Holmbeck, G. N., & Wandrei, M. L. (1993). Individual and relational predictors of adjustment in first-year college students. *Journal of Counseling Psychology, 40*, 73-78.
- Hudson, J. L., & Rapee, R. M. (2001). Parent-child interactions and anxiety disorders: An observational study. *Behaviour Research and Theory, 39*, 1411-1427.
- Kagitcibasi, C. (1996). The autonomous-relational self: A new synthesis. *European Psychologist, 1*, 180-186.
- Keniston, K. (1971). *Youth and dissent: The rise of a new opposition*. New York: Harcourt Brace Jovanovich.
- Kroger, J. (1985). Separation-individuation and ego identity status in New Zealand university students. *Journal of Youth and Adolescence, 14*, 133-147.
- Kruse, J., & Walper, S. (2008). Types of individuation in relation to parents: Predictors and outcomes. *International Journal of Behavioral Development, 32*, 390-400.
- Lapsley, D. K., & Edgerton, J. (2002). Separation-individuation, adult attachment style, and college adjustment. *Journal of Counseling and Development, 80*, 484-492.
- Lapsley, D. K., Rice, K. G., & Shadid, G. E. (1989). Psychological separation and adjustment to college. *Journal of Counseling Psychology, 36*, 286-294.
- Lemma, R. C. (2004). The relationship among parental representation, separation-individuation, and depression in adolescence. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 64*.

- Levine, J. B., Green, C. J., & Millon, T. (1986). Separation-individuation test of adolescence. *Journal of Personality Assessment, 50*, 123-137.
- Levitz-Jones, E. M., & Orlosfsky, J. L. (1985). Separation-individuation and intimacy capacity in college women. *Journal of Personality and Social Psychology, 49*, 156-169.
- Lewinsohn, P. M., Pettit, J. W., Joiner, T. E., & Seeley, J. R. (2003). The symptomatic expression of major depressive disorder in adolescents and young adults. *Journal of Abnormal Psychology, 112*, 244-252.
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the depression, anxiety stress scales (DASS) with the Beck depression and anxiety inventories. *Behavior Research, 33*, 335-343.
- Luyckx, K., Goossens, L., Soenens, B., & Beyers, W. (2006). Unpacking commitment and exploration: preliminary validation of an integrative model of late adolescent identity formation. *Journal of Adolescence, 29*, 361-378.
- Manttanah, J. F., Hancock, G. R., & Brand, B. L. (2004). Parental attachment, separation-individuation, and college student adjustment: A structural equation analysis of mediational effects. *Journal of Counseling Psychology, 51*, 213-225.
- Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology, 3*, 551-558.
- Marcia, J. (1967). Ego identity status: Relationship to change in self-esteem, "general maladjustment," and authoritarianism. *Journal of Personality, 35*, 119-133.
- Marcia, J. E. (1976). Identity six years after: A follow up study. *Journal of Youth and Adolescence, 5*, 145-150.
- Masten, A. S., Burt, K. B., Roisman, G. I., Obradovic, J., Long, J. D., & Tellegen, A. (2004). Resources and resilience in the transition to adulthood: Continuity and change. *Development and Psychopathology, 16*, 1071-1094.
- McClanahan, G., & Holmbeck, G. N. (1992). Separation-Individuation, family functioning, and psychological adjustment in college students: A construct validity study of the separation-individuation test of adolescence. *Journal of Personality Assessment, 59*, 468-485.
- Miller, L. (1995). The transition to adulthood: Oedipal themes. *Psychoanalytic Psychotherapy, 9*, 219-230.
- Mirowsky, J. (1996). Age and the gender gap in depression. *Journal of Health and Social Behavior, 37*, 362-380.

- Montgomery, M. J. (2005). Psychosocial intimacy and identity: From early adolescence to emerging adulthood. *Journal of Adolescent Research, 20*, 346-374.
- Montgomery, S. M., & Schoon, I. (1997). Health and health behaviour. In J. Bynner, E. Ferri, & P. Shepherd (Eds.), *Twenty-something in the 1990s* (pp. 77-96). Brookfield, USA: Ashgate.
- Moore, D. (1987). Parent-adolescent separation: The construction of adulthood by late adolescents. *Developmental Psychology, 23*, 298-307.
- Mortimer, J. T., & Staff, J. (2004). Early work as a source of developmental discontinuity during the transition to adulthood. *Developmental Psychopathology, 16*, 1047-1070.
- Mortimer, J. T., Zimmer-Gembeck, M. J., Holmes, M., & Shanahan, M. J. (2002). The process of occupational decision making: Patterns during the transition to adulthood. *Journal of Vocational Behavior, 61*, 439-465.
- Nelson, L. J., & Barry, C. M. (2005). Distinguishing features of emerging adulthood: The role of self-classification as an adult. *Journal of Adolescent Research, 20*, 242-262.
- Nesse, R. M. (2000). Is depression an adaptation? *Archives of General Psychiatry, 57*, 14-20.
- Ollech, D., & McCarthy, J. (1997). Impediments to identity formation in female adolescents. *Psychoanalytic Psychology, 14*, 65-80.
- Orlofsky, J. L., Marcia, J. E., & Lesser, I. M. (1973). Ego identity status and the intimacy versus isolation crisis of young adulthood. *Journal of Personality Psychology, 27*, 211-219.
- Oswald, D. L., & Clark, E. M. (2003). Best friends forever?: High school best friendships and the transition to college. *Personal Relationships, 10*, 187-196.
- Parker, G. (1981). Parental reports of depressives: An investigation of several explanations. *Journal of Affective Disorders, 3*, 131-140.
- Patton, G. C., Coffey, C., Poesterino, M., Carlin, J. B., & Wolfe, R. (2001). Parental 'affectionless control' in adolescent depressive disorder. *Social Psychiatry and Psychiatric Epidemiology, 36*, 475-480.
- Pavot, W., & Diener, E. (1993) Review of the Satisfaction with Life Scale. *Psychological Assessment, 5*, 164-172.

- Perosa, S. L., & Perosa, L. M. (1993). Relationships among Minuchin's structural family model, identity achievement, and coping style. *Journal of Counseling Psychology, 40*, 479-489.
- Papini, D. R., Micka, J. C., & Barnett, J. K. (1989). Perceptions of intrapsychic and extrapsychic functioning as bases of adolescent ego identity statuses. *Journal of Adolescent Research, 4*, 462-482.
- Quintana, S. M. & Kerr, J. (1993). Relational needs in late adolescent separation-individuation. *Journal of Counseling and Development, 71*, 349-354.
- Rao, U., Tyan, N. D., Birmaher, B., Dahl, R. E., Williamson, D. E., Kaufman, J., et al. (1995). Unipolar depression in adolescents: Clinical outcome in adulthood. *American Academy of Child and Adolescent Psychiatry, 34*, 566-578.
- Rasmussen, J. E. (1964). Relationship of ego identity to psychosocial effectiveness. *Psychological Reports, 15*, 815-825.
- Reifman, A., & Dunkel-Schetter, C. (1990). Stress, structural social support, and well-being in university students. *Journal of American College Health, 38*, 271-277.
- Reifman, A., Arnett, J. J., & Colwell, M. J. (2007). Emerging adulthood: Theory, assessment and application. *Journal of Youth Development, 2*, 39-50.
- Reinherz, H. Z., Giaconia, R. M., Hauf, A. M. C., Wasserman, M. S., & Silverman, A. B. (1999). Major depression in the transition to adulthood: Risks and impairments. *Journal of Abnormal Psychology, 108*, 500-510.
- Reinherz, H. Z., Paradis, A. D., Giaconia, R. M., Stashwick, C. K., & Fitzmaurice, G. (2003). Childhood and adolescent predictors of major depression in the transition to adulthood. *American Journal of Psychiatry, 160*, 2141-2147.
- Rice, K. G. (1990). Attachment in adolescence: A narrative and meta-analytic review. *Journal of Youth and Adolescence, 19*, 511-538.
- Rice, K. G. (1992). Separation-individuation and adjustment to college: A longitudinal study. *Journal of Counseling Psychology, 39*, 203-213.
- Rice, K. G., Cole, D. A., & Lapsley, D. K. (1990). Separation-individuation, family cohesion, and adjustment to college: measurement validation and test of a theoretical model. *Journal of Counseling Psychology, 37*, 195-202.
- Rice, F., Harold, G. T., & Thapar, A. (2003). Negative life events as an account of age-related differences in the genetic aetiology of depression in childhood and adolescence. *Journal of Child Psychology and Psychiatry, 44*, 977-987.

- Roisman, G. I., Masten, A. S., Coatsworth, J. D., & Tellegen, A. (2004). Salient and emerging developmental tasks in the transition to adulthood. *Child Development, 75*, 123-133.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68-78.
- Ryan, R. M., & Lynch, J. H. (1989). Emotional autonomy versus detachment: Revisiting the vicissitudes of adolescence and young adulthood. *Child Development, 60*, **340-356**.
- Scheer, S. D., Unger, D. G., & Brown, M. B. (1996). Adolescents becoming adults: Attributes for adulthood. *Adolescence, 31*, 127-131.
- Schulenberg, J. E., Bryant, A. L., & O'Malley, P. (2004). Taking hold of some kind of life: How developmental tasks relate to trajectories of well-being during the transition to adulthood. *Development and Psychopathology, 16*, 1119-1140.
- Schulenberg, J., Maggs, J. L., & Hurrelmann, K. (1997). Negotiating developmental transitions during adolescence and young adulthood: Health risks and opportunities. In Schulenberg, J., Maggs, J. L., & Hurrelmann, K. (Eds.), *Health risks and developmental transitions during adolescence* (pp. 1-19). New York, NY: Cambridge University Press.
- Schulenberg, J. E., & Zarret, N. R. (2006). Mental health during emerging adulthood: Continuity and discontinuity in courses, causes, and functions. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 135-172). Washington, DC: American Psychological Association.
- Seidlitz, L., Fujita, F., & Duberstein, P. R. (2000). Emotional experience over time and self-reported depressive symptom. *Personality and Individual Differences, 28*, 447-460.
- Seiffge-Krenke, I. (2006). Leaving home or still in the nest? Parent-child relationships and psychological health as predictors of different leaving home patterns. *Developmental Psychology, 42*, 864-876.
- Shanahan, M. J. (2000). Pathways to adulthood in changing societies: Variability and mechanisms in life course perspective. *Annual Review of Sociology, 26*, 667-692.
- Shanahan, M. J., & Bauer, D. J. (2004). Developmental properties of transactional models: The case of life events and mastery from adolescence to young adulthood. *Developmental Psychopathology, 16*, 1095-1117.

- Sheeber, L., Hops, H., & Davis, B. (2001). Family processes in adolescent depression. *Clinical Child and Family Psychology Review*, 4, 19-35.
- Sherrod, L. R. (1996) Leaving home: The role of individual and family factors. *Directions for Child Development*, 71, 111-119.
- Sneed, J. R., Johnson, J. G., Cohen, P., Gilligan, C., Chen, H. , Crawford, T. N., et al. (2006). Gender differences in the age-changing relationship between instrumentality and family contact in emerging adulthood. *Developmental Psychology*, 42, 787-797.
- Tanner, J. L. (2006). Recentering during emerging adulthood: A critical turning point in life span human development. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 21-55). Washington, DC: American Psychological Association.
- Thiessen, V., & Looker, E. D. (1999). Diverse directions: Young adults' multiple transitions. In W. R. Heinz (Ed.), *From education to work: Cross-national perspectives* (pp. 46-64). New York, NY: Cambridge University Press.
- Tognoli, J. (2003). Leaving home: Homesickness, place attachment, and transition among residential college students. *Journal of College Student Psychotherapy*, 18, 35-48.
- Turner, R. J. , Taylor, J., & Gundy, K. V. (2004). Personal resources and depression in the transition to adulthood: Ethnic comparisons. *Journal of Health and Social Behaviors*, 45, 34-52.
- U.S. Census Bureau. (2006, September). *Estimated Median Age at First Marriage, by Sex: 1890 to the Present*. Retrieved November 7, 2008, from <http://www.census.gov/population/socdemo/hh-fam/ms2.pdf>.
- Valde, G. A. (1996). Identity closure: A fifth identity status. *The Journal of Genetic Psychology*, 157, 245-254.
- Van Gundy, K. (2002). Gender, the assertion of autonomy, and the stress process in young adulthood. *Social Psychology Quarterly*, 65, 346-363.
- Walker, E. F., Sabuwalla, Z., & Huot, R. (2004). Pubertal neuromaturation, stress sensitivity, and psychopathology. *Developmental Psychopathology*, 16, 807-824.
- Walters, P. A. (1989). Depression. In P.A. Grayson & K. Cauley (Eds.), *College psychotherapy* (pp. 136-149). New York: Guilford Press.

- Waterman A. S. (1982). Identity development from adolescence to adulthood: An extension theory and a review of research. *Developmental Psychology, 18*, 341-358.
- Wautier, G., & Blume, L. B. (Crawford & Marecek, 1989). (2004). The effects of ego identity, gender role, and attachment on depression and anxiety in young adults. *Identity, 4*, 2004, 59-76.
- Whitbourne, S. K., & Tesch, S. A. (1985). A comparison of identity and intimacy statuses in college students and alumni. *Developmental Psychology, 21*, 1039-1044.
- Wight, R. G., Sepulveda, J. E., & Aneshensel, C. S. (2004). Depressive Symptoms: How Do Adolescents Compare With Adults? *Journal of Adolescent Health, 34*, 314-323.
- Zarrett, N., & Eccles, J. (2006). The passage to adulthood: The challenges of late adolescence. *New Directions for Youth Development, 111*, 13-28.

VITA

The author, Jennifer Edidin, received her Bachelor of Arts degree in Italian from Middlebury College in the Spring of 1998. After finishing college, Ms. Edidin moved to San Francisco where she completed coursework in the sciences and worked at Burt Children's Center, a home for emotionally disturbed and abused children. In 2001, Ms. Edidin moved to Taos, NM, where she lived and worked for two years. She received her Master's degree in Psychology at Boston University in Spring 2004.

Ms. Edidin is currently a sixth year doctoral student in clinical psychology at Loyola University Chicago, where she is on the Child and Family Track. At Loyola, Ms. Edidin has engaged in two distinct areas of research. She worked as a research assistant for Dr. Noni Gaylord-Harden's laboratory, the focus of which is stress and coping in African American youth. She was involved in a study that examined the relation between coping socialization and coping strategies employed by African American youth, and their effects on internalizing and externalizing behavior. She also assisted in the development of a culturally and contextually pertinent coping measure for African American children. Additionally, she pursued her interest in the budding area of emerging adulthood. While at Loyola, Ms. Edidin also taught an undergraduate course in Child Development. She completed her clinical training at the Loyola University Wellness Center, The University of Chicago Pediatric Neuropsychology Service, and John H. Stroger, Jr. Hospital of Cook County's Child and Adolescent Psychiatric Clinic.

Ms. Edidin is presently completing her internship in Child Psychology at the University of Chicago Medical Center in Chicago, Illinois

DISSERTATION APPROVAL SHEET

The dissertation submitted by Jennifer Paley Edidin has been read and reviewed by the following committee:

Noni Gaylord-Harden, Ph.D.
Assistant Professor, Psychology
Loyola University Chicago

Maryse Richards, Ph.D.
Professor, Psychology
Loyola University Chicago

Scott Leon, Ph.D.
Assistant Professor, Psychology
Loyola University Chicago

Linda Heath, Ph.D.
Professor, Psychology
Loyola University Chicago

The final copies have been examined by the director of the dissertation and the signature that appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given full approval by the committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

Date

Director's Signature

