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## Social and Psychological Factors Related to the Career Exploration Process of Young Adults

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SOCIAL AND PSYCHOLOGICAL FACTORS RELATED  
TO THE CAREER EXPLORATION PROCESS  
OF YOUNG ADULTS

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THESIS

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A thesis submitted in partial fulfillment of the  
requirements for the degree of Master of Science in the  
College of Agriculture, Food and Environment  
at the University of Kentucky

By

Joanne N. Hellmann

Lexington, Kentucky

Director: Dr. Donna Smith, Associate Professor of Family Sciences

Lexington, Kentucky

2014

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## ABSTRACT OF THESIS

### SOCIAL AND PSYCHOLOGICAL FACTORS RELATED TO THE CAREER EXPLORATION PROCESS OF YOUNG ADULTS

This study examined social and psychological factors influencing the career exploration process of young adults. The predictor variables of this study were parental attachment, peer attachment, and self-efficacy; the outcome variables were environmental/occupational exploration, self-exploration, and career indecision. Data for this study were collected using various measures that were compiled into one survey hosted on Qualtrics. Results indicated that secure maternal attachment predicted secure peer attachment and high self-efficacy in young adults. Greater peer attachment was negatively correlated with environmental exploration. A higher level of self-efficacy was positively correlated with environmental exploration and negatively correlated with career indecision. These results imply that maternal attachment has an indirect influence on a young adult's career exploration process.

**KEYWORDS:** Career exploration, self-efficacy, parental attachment, career indecision, young adults

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Joanne N. Hellmann

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May 7, 2014

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SOCIAL AND PSYCHOLOGICAL FACTORS RELATED  
TO THE CAREER EXPLORATION PROCESS  
OF YOUNG ADULTS

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## TABLE OF CONTENTS

Acknowledgments _____	iii
List of Tables _____	v
List of Figures _____	vi
Chapter One: Introduction _____	1
Need for the Study _____	1
Family Influence _____	2
Peer Influence _____	3
Self-Efficacy _____	3
Statement of the Problem _____	4
Hypotheses _____	5
Chapter Two: Review of the Literature _____	6
Theoretical Framework _____	6
Attachment theory _____	6
Family systems theory _____	7
Literature Review _____	8
Family Influence _____	8
Peer Influence _____	10
Self-Efficacy _____	11
Chapter Three: Methods _____	13
Sample _____	13
Procedure _____	17
Measures _____	18
Demographics _____	18
Environmental exploration _____	18
Career indecision _____	18
Parental attachment _____	19
Peer influence _____	19
Self-efficacy _____	20
Chapter Four: Results _____	21
Chapter Five: Discussion _____	25
Family Influence _____	25
Peer Influence _____	27
Self-Efficacy _____	28
Limitations _____	29
Implications for Practice _____	30
Implications for Future Research _____	31
Concluding Remarks _____	32
Appendices _____	33

Appendix A	33
Appendix B	34
Appendix C	35
Appendix D	38
Appendix E	39
Appendix F	41
Appendix G	44
Appendix H	45
References	46
Vita	51



## LIST OF TABLES

Table 3.1, Demographics of Student Participants	14
Table 3.2, Colleges/Universities of Student Participants	16
Table 4.1, Correlations of Measures	22

## LIST OF FIGURES

Figure 4.1, Fully Saturated Path Model	23
Figure 4.2, Best Fit Path Model	24

## **Chapter One**

### **Introduction**

Career indecision has become a major concern of career psychologists, practitioners, researchers, and educators (Gaffner & Hazler, 2002; Vignoli, 2009). The inability to make career related decisions is a common occurrence for adolescents and young adults (Braunstein-Bercovitz, Benjamin, Asor, & Lev, 2012). Past research has noted that exploring, selecting, and committing to a career choice is a major developmental task of young adults (Erikson, 1968; Vignoli, 2009). Early adulthood is the developmentally appropriate time one must begin to make career related decisions, plans, and choices (Vignoli, 2009). In the past, career indecision was not a major concern because people were not being pushed to revise their career decisions, as they are currently (Gaffner & Hazler, 2002). For example, today's American society strives for success, which is usually tied to wealth. Young adults might be forced to reevaluate their career decisions due to low earning potentials in their future careers.

Past research has examined the impact of family influences and parental attachment on the career exploration process (Blustein, Prezioso, & Schultheiss, 1995; Braunstein-Bercovitz, Benjamin, Asor, & Lev, 2012; Germeijs & Verschueren, 2009; Ketterson & Blustein, 1997; Vignoli, 2009; Wright & Perrone, 2010). Other research has focused on the relationship between career development and peers (Felsman & Blustein, 1999). *This study will focus on the influence of familial and peer interactions and self-efficacy on young adults' career exploration processes.*

### **Need for the Study**

The purpose of this research was to investigate how social and psychological factors influence the career exploration and decision-making processes of young adults.

According to Gaffner and Hazler (2002), between 20 and 60 percent of emerging adults are undecided in regard to college majors and future career choices. Students with a declared major also experience uncertainty with choices made; many college students start their college careers without an idea as to why they have chosen their major (Tinto, as cited in Allen, 1999).

In order to advise college students in the career exploration process, there must be an understanding of the factors contributing to students' inability to make career related decisions. One research study examining the risks and benefits of adolescent work found that some young adults graduate from college without any idea as to what their career path is (Mortimer, 2012). Exploring family, social, and individual factors and how these factors influence career exploration will assist in the guidance of young adults struggling with career indecision and exploration.

### **Family Influence**

Blustein et al. (1995) theorized that the quality of young adults' relationship with their parents is related to the ability to engage in career development activities. The attachment relationship formed with an individual's parents may provide a sense of security, allowing a young adult to begin the career exploration process (Germeijs & Verschueren, 2009). Moreover, Ketterson and Blustein (1997) found a positive correlation between secure attachment relationships and career exploration. Family relationships, specifically parental attachment, appear to influence the career exploration processes of young adults.

## **Peer Influence**

Similar to parental attachment, peer relationships have been found to influence an individual's career choices (Felsman & Blustein, 1999; Wilkinson, 2004). As adolescents separate from their families, secure attachments are transferred and fostered in peer relationships. As a result, young adults with positive peer relationships experience a sense of freedom in regard to making career choices, allowing them to explore career options in greater depth. Close interpersonal relationships provide individuals with opportunities to learn about themselves through peer interactions (Felsman & Blustein, 1999). This study assessed whether peer relationships influence the career exploration process by examining peer attachment.

## **Self-Efficacy**

For the scope of this study, self-efficacy is defined as a young adult's perceived ability to reach or accomplish a goal (Betz & Vuyten, 1997). Research has shown a positive correlation between secure attachment relationships and self-efficacy (Mallinckrodt & Wei, 2005). In addition, secure attachment relationships enhance an individual's ability to successfully explore his or her environment, thus providing the individual with enhanced self-efficacy to engage in career exploration (Wright & Perrone, 2008). Lease and Dahlbeck (2009) theorized that family variables, such as parental attachment and parenting styles, influence career decision self-efficacy. This study examined how perceived self-efficacy, stemming from family influence, directly affects a young adult's ability to make career related decisions.

## **Statement of the Problem**

Given that career indecision is a major concern for emerging adults, researchers must address from where the inability to make choices and explore one's environment stems. For the scope of this study, career exploration is the purposeful, active examination process of potential career opportunities, while career indecision is the inability to commit to or make career-related decisions. Past research has found relationships between career indecision, environmental exploration, self-esteem, and attachment relationships (Ketterson & Blustein, 1997; Vignoli, 2009). Securely attached adolescents are more likely to take positive risks when exploring their environment than insecurely attached adolescents. Secure attachment allows an adolescent to comfortably explore nontraditional career alternatives and opportunities.

Adolescents may also prematurely commit to career choices without sufficient environmental exploration or never fully commit to a specific career path. Both of these outcomes may be detrimental to future developmental transitions of an adolescent approaching adulthood (Jordaan, as cited in Felsman & Blustein, 1999). Given these possible outcomes, it is important to understand the specific factors contributing to young adult exploration and commitment of career paths in order to better guide individuals experiencing career indecision.

Adolescents face many challenges as they approach adulthood. Of these challenges, exploring one's environment and committing to a career path are critical events that transition one to adulthood (Erikson, as cited in Felsman & Blustein, 1999). The present study focused on the different family and individual variables that may affect a young adult's career exploration and career decision-making process. Key terms of this study can be found in Appendix A.

## Hypotheses

The purpose of this study was to investigate how social and psychological factors influence the career exploration process of young adults in college. This study addressed the following hypotheses:

1. *Parental attachment* will be positively related to the career exploration process. More specifically, adolescents who report secure attachment with parents will score higher in the career exploration process and lower in career indecision.
2. *Peer influence*, defined as a young adult's relationship with his or her peers, will be positively correlated with career exploration. Positive peer attachment relationships will result in higher reports of career exploration, as well as lower prevalence of career indecision.
3. *Self-efficacy* will be positively correlated with career exploration. As an individual's perceived ability to make career-related decisions increases, his or her ability to engage in career exploration will also increase. Additionally, self-efficacy will be negatively correlated with career indecision.

## Chapter Two

### Review of the Literature

#### Theoretical Framework

**Attachment theory.** Early childhood experiences shape an individual's beliefs about the responsiveness and trustworthiness of others through interactions with primary caregivers (Fraley, Roisman, Booth-LaForce, Owen, & Holland, 2013). "Research has demonstrated that adult attachment styles have broad consequences for interpersonal functioning, emotion regulation, and well-being" (Fraley et al., 2013, p. 1). Given this research, an individual's actions and behaviors are influenced by the attachment relationships formed with parents and peers.

Relationships with significant others, including parents, who display emotional and physical availability to an individual's needs provide the individual with a sense of security (Bowlby, as cited in Ketterson & Blustein, 1997). In addition, research indicates that secure attachment to parental figures, as well as peers, has a positive influence on the development and adjustment of adolescents (Bowlby, as cited in Vignoli, 2009). The sense of security and support from attachment figures promotes active environmental exploration, as well as mastery of the environment and developmental tasks (Bowlby, as cited in Ketterson & Blustein, 1997; Vignoli, 2009). A sense of security from parental support should enable a young adult to actively explore the process of career decision-making tasks with the knowledge there is a safe place to return to for restoration (Feeney & Monin, 2008).

Previous research has successfully applied the attachment theory to adolescent career exploration and decision-making. Ketterson and Blustein (1997) found a positive correlation between parental attachment and environmental exploration. Attachment



anxiety resulted in less independent decision-making (Petegem, Beyers, Brenning, & Vansteenkiste, 2012). Similarly, results from Vignoli (2009) indicated a positive correlation between parental attachment and career decision-making.

**Family systems theory.** To better understand the influence of parents, the family systems perspective places emphasis on the interactional patterns and interdependence of the individual's family system (Zingaro, as cited in Lopez & Andrews, 1987). Lopez and Andrews (1987) theorized that an individual's experience with career indecision could be linked to the person's interactions with his or her family unit, rather than a result of an individual personality trait. Moreover, the authors believed the interactional patterns could enhance or hinder an individual's ability to make decisions; a negative family interaction pattern will create and possibly maintain career indecision (Lopez & Andrews, 1987, p. 304).

Using family systems perspective, Lopez and Andrews (1987) hypothesized that the presence of adolescent career indecision could be a result of over-involvement on the parents' behalf. In addition, career indecision may act as a relief factor to the family unit experiencing stress about separation and transitions. Students may also utilize career indecision as a way to relieve anxiety about disappointing a parental figure in terms of career expectations (Lopez & Andrews, 1987, p. 306).

For this study, the family systems theory assisted in the assessment of how the parental unit, in terms of attachment, affects an adolescent's career exploration and decision-making process. This perspective implies that an individual is one part of an entire system of interactions. Family systems theory added to the perception that career indecision may not be solely a result of an individual trait, but may stem from a series of interactions within an entire family system.

## **Literature Review**

**Family influence.** This study examined parental attachment to analyze the effect of family influences on the career exploration process. Previous research has recognized the quality of parental attachment as an influential and important factor affecting the career exploration processes of young adults (Blustein et al., 1995; Braunstein-Bercovitz et al., 2012; Germeijs & Verschueren, 2009; Ketterson & Blustein, 1997; Lease & Dahlbeck, 2009; Vignoli, 2009). While the majority of past research focused on how secure attachment styles influence career exploration, Braunstein-Bercovitz et al. and Petegem et al. (2012) focused on the effects of insecure attachment styles.

Braunstein-Bercovitz et al. (2012) hypothesized that both anxious and avoidant attachment styles are positively associated with career indecision (p. 237). The researchers found that anxious attachment affected career decision-making, which may conflict with one's career experiences. However, avoidant attachment was not associated with career indecision. Participants with insecure-anxious attachment styles were more likely to report feelings of distress and maladjustment in comparison to the participants experiencing insecure-avoidant attachment (Braunstein-Bercovitz et al., 2012).

Some studies have also addressed adolescent attachment styles and how they function in regard to their family decision-making. Petegem et al. (2012) found that adolescents who reported avoidant attachment experienced less self-endorsement, and more pressuring motives, for dependent decision making; anxious attachment was associated with more independent decision-making. Adolescents reporting attachment anxiety also experienced more pressuring motives for both independent and dependent decision-making (Petegem et al., 2012).

Vignoli (2009) investigated the role of adolescent global self-esteem and career indecision on the relationship between mother and father attachment and self-esteem. The global self-esteem aspect was based upon the relationship between adolescents' parental attachment and career indecision. Parental attachment and career indecision were negatively correlated, as were self-esteem and career indecision, while parental attachment and self-esteem were positively correlated. More specifically, the results of the study showed that the more attached an adolescent felt to their mother and father, the easier it was for the adolescent to make career related decisions (Vignoli, 2009).

Using longitudinal data collected from high school students, Germeijs and Verschueren (2009) examined how parental attachment security affected an adolescent's process of choosing a college major. Selecting a college major is an important task in the career exploration process. The results of this study revealed that higher levels of secure attachment relationships benefited an individual's process of choosing a major in higher education. Also, in terms of gender, the researchers found that one's perceived attachment with his or her mother, not father, was a significant predictor of how the adolescent will cope with decision-making tasks (Germeijs & Verschueren, 2009). The results further indicated that the impact of attachment relationships on the selection process of choosing a major is similar for both boys and girls (Germeijs & Verschueren, 2009, p. 478).

Ketterson and Blustein (1997) found that higher levels of parental attachment are related to higher levels of environmental and self-exploration. Additionally, young adults who reported feeling closer to their parents were more likely to report higher levels of environmental exploration. Earlier studies found that a sense of attachment security will promote active exploration of one's environment (Bowlby, as cited in Ketterson &

Blustein, 1997). Secure attachment relationships might facilitate exploration in general, rather than career exploration.

Past research on parental attachment in relation to environmental and career exploration supports the direction of this study in looking at family influences as a specific factor affecting career exploration. The findings of previous research highlight the importance of parental attachment on young adults' exploration processes. Although Ketterson and Blustein (1997) did not generalize their data to support career exploration, they suggested future research should focus on how parental attachment influences specific exploratory activities (p. 174).

**Peer influence.** As emerging adults begin to separate from their parents, peer relationships become essential in the career development process. In addition to parental attachment, Wilkinson (2004) found that peer attachment influenced an individual's overall psychological adjustment and self-esteem (p. 489). Vignoli (2009) found a positive correlation between career exploration and reported self-esteem, indicating that peer attachment may indirectly affect the career exploration process through self-esteem.

Felsman and Blustein (1999) hypothesized that young adults will utilize close peer relationships as support networks when exploring or making career development decisions. Similar to parental attachment, positive peer relationships may provide an individual with the ability to take positive risks while making career related decisions (Blustein et al., 1995; Felsman & Blustein, 1999).

As attachment theory might predict, Felsman and Blustein (1999) discovered undergraduate students are more likely to experience greater progress in making career related decisions if they experience higher levels of attachment to peers. The researchers did not find a significant difference between male and female attachment to peers and

career decision-making (Felsman & Blustein, 1999, p. 290). Felsman and Blustein also predicted young adults may use peer interactions as a way to decrease their anxiety resulting from the stress of exploring career opportunities.

**Self-efficacy.** Previous research focused on the relationship between self-efficacy and the career exploration and planning process (Betz & Vuyten, 1997; Creed, Patton & Prideaux, 2007; Rogers, Creed & Glendon, 2008). The term *career decision-making self-efficacy* is frequently used in the literature and is defined as an individual's belief in his or her ability to engage in certain behaviors in specific career-related domains (Betz & Vuyten, 1997). According to the research of Betz and Vuyten (1997), career indecision is best predicted by one's beliefs surrounding educational and occupational capabilities.

Research defines self-efficacy as an important and influential factor in the career exploration and decision-making process. "Career self-efficacy is an important motivational variable as it influences the focus, initiation and persistence of behaviors, including career behaviors" (Creed et al., 2007, p. 378). Creed et al. also defined self-efficacy as a cognitive mechanism responsible for behaviors and changes in behaviors.

A common finding in the research literature is a positive correlation between self-efficacy and career exploration. In their research on the influence of self-efficacy and outcome expectations on career exploration, Betz and Vuyten (1997) found a negative correlation between self-efficacy and career indecision. In a study focused on career maturity, Creed, Patton, and Prideaux (2007) found that students with higher levels of confidence in career decision-making were more likely to report higher incidences of career exploration than students with lower levels of self-efficacy. With this finding, the researchers concluded self-efficacy is a key element in the career exploration process (Creed, Patton, & Prideaux, 2007, p. 389).

Rogers, Creed, and Glendon (2008) were interested in exploring the role of personality in the career planning process. The researchers tested the relationships between personality, social supports, and variables of the social cognitive career theory. The overall findings of this research suggested the individuals who displayed confidence, or self-efficacy, in making career specific decisions were more likely to set career-related goals. In addition, individuals capable of setting goals were also more likely to create plans and explore career opportunities (Rogers, Creed, and Glendon, 2008, p. 141).

A study by Gushue et al. (2006) examined career decision-making self-efficacy of urban African American students. The researchers revealed a positive correlation between career decision-making self-efficacy and career exploration activities. The students that experienced greater self-confidence in regard to career decision-making were more likely to engage in activities related to career exploration (Gushue et al., 2006).

Past research has consistently supported the importance of self-efficacy in the career exploration process (Betz & Vuyten, 1997; Rogers et al., 2008). However, self-efficacy is not limited to career exploration and planning. An individual's sense of self-efficacy also influences his or her career performance, persistence (Betz, 2004) and interests (Gushue et al, 2006). Given this finding, self-efficacy is a key variable in many aspects of the career selection, decision-making, and performance processes.

In summary, parental attachment, peer influence, and self-efficacy appear to be influential factors that guide the career exploration process of young adults. Thus, the goal of this study was to examine the effect that these predictor variables have on the outcome variables of occupational/environmental exploration and career indecision. In addition, this study is needed in order to improve advising experiences for undergraduates.

## Chapter Three

### Methods

#### Sample

For this present quantitative study, undergraduate students between the ages of 18 and 25 were recruited to participate. The specific population was targeted because a major task for this developmental stage is exploring and selecting a career path. Moreover, nontraditional students (students beyond the age of 25) were excluded from this study because peer and parental attachment may be less influential on their career exploration processes.

The participants were recruited through convenience sampling; snowball sampling may have also occurred. Undergraduate students were heavily recruited from the University of Kentucky, but other universities were also included in the recruitment process. The convenience sample was recruited in various ways. One method included the researcher providing the survey link to students in a pre-advising setting with Family Sciences students. Another avenue of recruitment involved sending emails to students on University of Kentucky's Family Sciences Listserv. A final means of recruitment involved posting the survey link on Facebook. Snowball sampling likely occurred because in all of the avenues of recruitment, the participants were asked to forward the survey link to their friends or family members.

A total of 179 undergraduate students responded to the survey; however, only 110 (61.4%) of these participants completed at least 95% of the survey. Participants ranged in age from 18 to 25, with a mean age of 20.79. The majority of students were female (n=95, 86.4%) and Caucasian (n=97, 88.2%). Additionally, 55.5% (n=61) of the sample reported their parental income as above \$75,000 annually. Lastly, 61.8% (n=68) of the

participants were from the University of Kentucky. A detailed description of the demographic variables can be found in Table 3.1 and a list of colleges can be found in Table 3.2.

**Table 3.1**

*Demographics of Student Participants (n=110)*

Variable	n	%
<i>Sex (n=109)</i>		
Male	14	12.7%
Female	95	86.4%
<i>Age (n=106)</i>		
18	9	8.2%
19	17	15.5%
20	17	15.5%
21	33	30.0%
22	16	14.5%
23	6	5.5%
24	4	3.6%
25	4	3.6%
<i>Ethnicity (n=110)</i>		
Caucasian	93	84.5%
African-American	8	7.3%
Asian-American	8	7.3%
Caucasian & Native-American	3	2.7%
Latin-American	2	1.8%
Caucasian & Asian-American	2	1.8%
Haitian-American	1	0.9%
<b>Table 3.1 (continued)</b>		
Caucasian & Latin-American	1	0.9%



*Parent's Income (n=110)*

Below 30,000	15	13.6%
30,000-50,000	12	10.9%
50,000-75,000	12	10.9%
Above 75,000	61	55.5%
Unknown	10	9.1%

*Academic Class (n=110)*

Freshman	23	20.9%
Sophomore	14	12.7%
Junior	32	29.1%
Senior	41	37.3%

*Changed Major (n=109)*

Never	47	42.7%
Once	41	37.3%
Twice	13	11.8%
Three Times	8	7.3%

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**Table 3.2***Colleges/Universities of Student Participants (n=110)*

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College	n
Auburn University	1
Berry College	3
Burlington County College	1
Elon University	1
Gardner-Webb University	1
Georgetown College	3
Georgia Institute of Technology	5
Indiana University	5
Ivy Tech	1
Middle Tennessee State University	4
Northern VA Community College	1
Penn State University	1
Purdue University	1
Rutgers	1
Samford University	2
University of South Dakota	3
University of Cincinnati	1
University of Florida	1
University of Kentucky	68
University of Louisville	1
University of Mississippi	2
University of Tennessee	1
West Chester University	1
Western Iowa	1

---

## **Procedure**

After receiving approval from the Institutional Review Board (Appendix B), the participants were recruited via email, pre-advising, and Facebook. Three waves of emails and Facebook notifications were sent out to eligible participants. Each wave was separated by approximately two weeks of time, allowing sufficient time for completion. The link was closed two weeks following the final wave of notifications; the data collection process lasted six weeks.

The participants were provided with a link that led them directly to the survey, which was hosted by Qualtrics. While the survey collected demographic information, no identifying information was collected, maintaining participants' anonymity. Additionally, research participants were not provided with incentives for survey completion. The participants were, however, notified of possible benefits that may result from their participation. A possible benefit included the addition of new information to the existing knowledge of the career exploration process of young adults.

Prior to beginning the survey, participants were provided with an informed consent (Appendix C). To further maintain anonymity, participants were not required to sign the informed consent. Instead, participants indicated agreement to the terms of the study by clicking the arrow button to begin the study. Following the informed consent, the participants were asked to respond to a number of questionnaires—the Career Exploration Survey, the Career Decision Scale, the Inventory of Parent and Peer Attachment, and the General Self-Efficacy Scale, which are discussed in depth in the following section. Additionally, approximately half of the participants were randomly chosen to complete the Career Decision-Making Self-Efficacy Scale—Short Form. This

randomization occurred to allow for comparative analysis of the General Self-Efficacy Scale and the Career Decision-Making Self-Efficacy Scale—Short Form.

## **Measures**

**Demographics.** Demographic data included the age, sex, parental income, race, and college year of each participant. Participants were asked to indicate how many times they changed their college major in the past. Additionally, participants were asked to respond to a 10-point scaling question regarding their level of confidence that they will graduate in their current major. Participants were asked to complete the demographic section prior to moving on to the questionnaires.

**Environmental exploration.** The Career Exploration Survey (CES; Stumpf, Colarelli, & Harman, 1983) was used to measure career related exploratory activity. Specifically, the Environmental Exploration (EE) and Self-Exploration (SE) subscales were administered to the participants. The EE subscale measures occupational and environmental exploration, and the SE subscale measures exploration and assessment of self. The CES uses a 5-point Likert scale ranging from *very little* (1) to *very often* (5). Past research utilizing the CES has reported alpha coefficients of .70 to .88 for the EE and SE subscales (Stumpf et al., 1983). For the present study, the internal reliabilities for the EE and SE were .87 and .86 respectively. The complete list of questions for the two subscales can be found in Appendix D.

**Career indecision.** Career indecision was measured using the Career Indecision subscale of the Career Decision Scale (Osipow, 1987). This subscale includes 16 items and uses a 4-point Likert scale ranging from *not at all like me* (1) to *exactly like me* (4). A high score on the indecision subscale indicates greater indecisiveness in making career-related decisions. Creed et al. (2007) utilized the Career Indecision subscale to measure

career planning and exploration of high school students. Their research revealed an internal reliability of .87. The internal reliability of the subscale for the present study was .91. For the whole scale, Osipow (1987) reported test-retest reliabilities ranging from .82 to .90. The Career Indecision subscale can be found in Appendix E.

**Parental attachment.** To measure the level of perceived attachment to both parents, the Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987) was used. This scale uses three subscales, 25 items each, to measure the relationship between young adults and their primary attachment figures: father, mother and peer attachment. The mother and father subscales were used to measure parental attachment. The IPPA rates items on a 5-point scale ranging from *almost never true* (1) to *almost always true* (5). To analyze parental attachment, the sum of each subscale was calculated. Higher scores indicate a secure parental attachment; low scores indicate insecure parental attachment. The IPPA has a high internal consistency within each dimension. In a study by Germeijs and Verschueren (2009), internal reliabilities were .94 for the mother scale and .96 for the father scale. Internal reliabilities were high for the present study; the alpha coefficients were .95 for the maternal attachment subscale and .96 for the paternal attachment subscale. The complete list of questions for the IPPA can be found in Appendix F.

**Peer influence.** The IPPA (Armsden & Greenberg, 1987) was also be used to measure the degree of peer attachment. A greater level of attachment to peers indicates a higher degree of peer influence. The internal reliability of the peer attachment subscale was reported at .92 (Armsden & Greenberg); the reliability measure of this subscale for the present study was also .92.

**Self-efficacy.** To measure self-efficacy, the Career Decision-Making Self-Efficacy Scale—Short Form (CDMSE-SF; Betz, Klein & Taylor, 1996) was presented to 51 participants. The CDMSE-SF consists of 25 items that measure the level of confidence an individual has in regard to his or her ability to engage in career-related tasks using a 5-point scale ranging from *no confidence* (1) to *complete confidence* (5). This measure includes five subscales: self-appraisal, gather occupational information, goal selection, making plans for the future, and problem solving. A high score on the CDMSE-SF indicates a high level of career decision-making self-efficacy. Research by Betz et al. (1996) indicated that the alpha coefficients for the subscales range from .73 to .83 and the alpha for the total scale is .95. Lease and Dahlbeck (2009) used this scale in their research to assess self-efficacy and reported an alpha coefficient of .92. The internal consistency measure from the present study was .93, which is indicative of high reliability. A list of example questions for the CDMSE-SF can be found in Appendix G.

Additionally, the General Self-Efficacy Scale (GSE) was utilized to measure self-efficacy. This scale includes 10 items with answers ranging from *not at all true* (1) to *exactly true* (4). Sample questions include: “I can usually handle whatever comes my way” and “thanks to my resourcefulness, I know how to handle unforeseen situations” (Schwarzer & Jerusalem, 1995). A high score on this assessment is indicative of greater self-efficacy. Alpha coefficients for this measure range from .76 to .90 (Schwarzer & Jerusalem, 1995). For the present study, an alpha coefficient of .84 was calculated. The GSE items can be found in Appendix H.

## Chapter Four

### Results

Initial analysis of the data included running correlations between the predictor and outcome variables. The results indicate significant positive correlations between peer attachment and both general self-efficacy ( $r = .26, p = .007$ ) and career decision-making self-efficacy ( $r = .39, p = .004$ ). Additionally, a significant positive correlation was found between peer and maternal attachment ( $r = .28, p = .004$ ). A significant negative correlation occurred between peer attachment and career indecision ( $r = -.19, p = .041$ ). The parental attachment variables were not significantly correlated with any of the outcome variables (see table 4.1 for full correlation matrix).

Following the initial analysis, a fully saturated path model was created to allow for the identification of insignificant paths (see figure 4.1 for the saturated model). Indices of fit are not available for fully saturated models. Some of the paths that were found to be insignificant included—father to environmental exploration and career indecision, mother to environmental exploration and career indecision, and peer to career indecision. Additionally, the self-exploration outcome variable did not have any statistically significant associations with any of the other variables in the model. Non-significant paths were removed from the model and a second model was performed.

**Table 4.1***Correlations of Measures*

Variables	Environmental Exploration	Self-Exploration	Career Indecision	General Self-Efficacy	Maternal Attachment	Paternal Attachment	Peer Attachment	Career Decision-Making Self-Efficacy
Environmental Exploration	1							
Self-Exploration	.331**	1						
Career Indecision	-0.004	.283**	1					
General Self-Efficacy	.242*	0.039	-.294**	1				
Maternal Attachment	-0.106	0	-0.11	0.176	1			
Paternal Attachment	-0.1	-0.004	-0.169	0.054	.704**	1		
Peer Attachment	-0.124	0.01	-.195*	.257**	.278**	0.18	1	
Career Decision-Making Self-Efficacy	-0.054	0.093	-.466**	.447**	0.255	0.046	.393**	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).



The second model (figure 4.2) shows the effect of maternal attachment on young adults' peer attachment and general self-efficacy. Additionally, this model shows the effect of peer attachment on environmental exploration and the influence of general self-efficacy on both environmental exploration and career indecision. The model fit indices are indicative of an overall good statistical fit ( $\chi^2 = 3.66$ ,  $df = 3$ , CFI = .976, and RMSEA = .045) (Hu & Bentler, 2009). All of the paths in this model were statistically significant. For example, for every one-point increase in maternal attachment, there is a corresponding .29 increase in peer attachment ( $r = .293$ ,  $p = .002$ ) and a .19 increase in general self-efficacy ( $r = .189$ ,  $p = .046$ ). Additionally, for every one-point increase in peer attachment, there is a corresponding .19 decrease in environmental exploration ( $r = -.194$ ,  $p = .039$ ). There was also a significant effect between general self-efficacy and environmental exploration ( $r = .293$ ,  $p = .002$ ), as well as general self-efficacy and career indecision ( $r = -.294$ ,  $p = .001$ ).

Figure 4.1 Fully Saturated Path Model

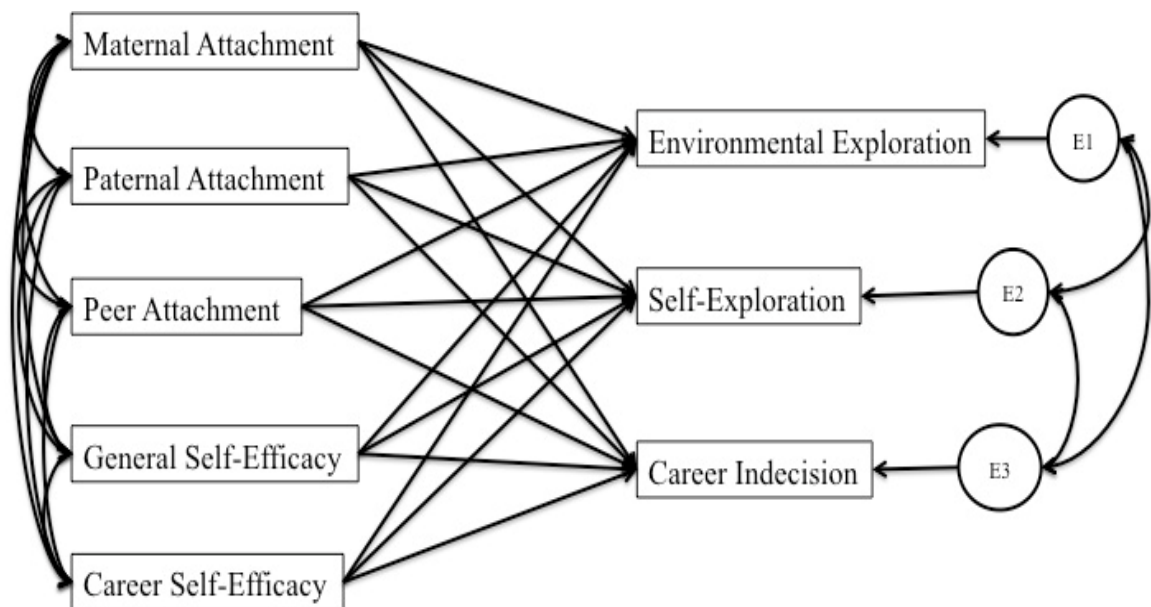
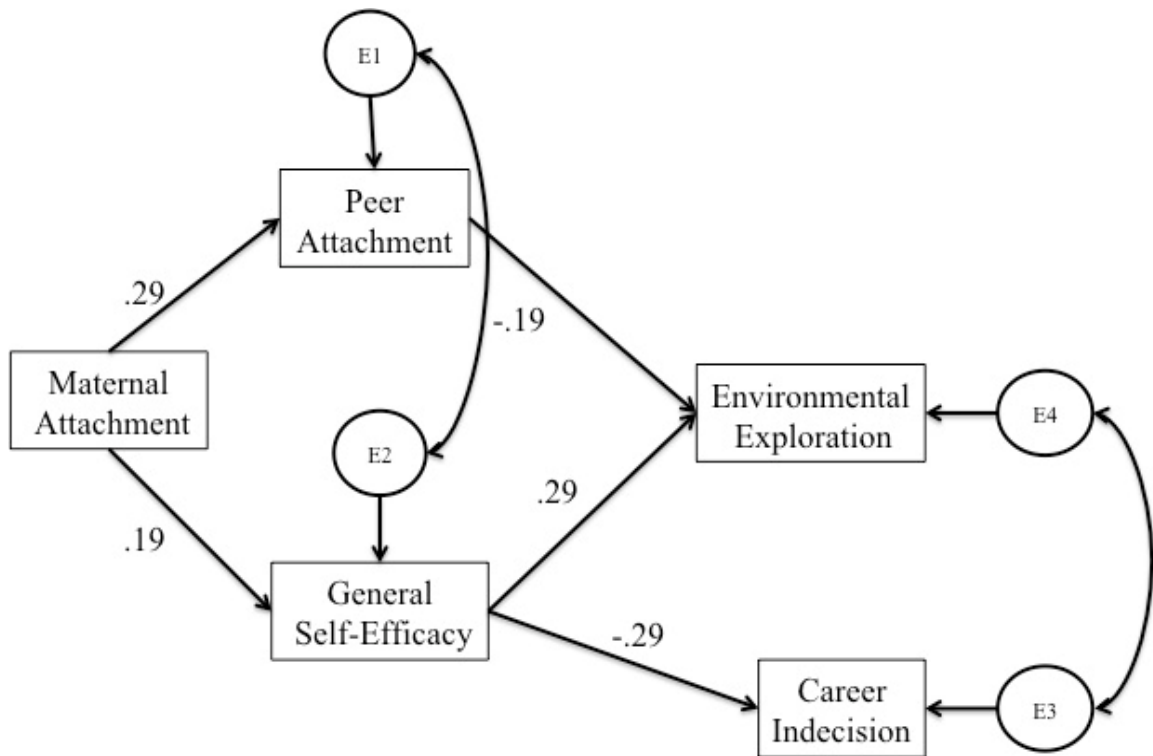


Figure 4.2 Best Fit Path Model



## **Chapter Five**

### **Discussion**

The goal of this study was to examine effects of social and psychological factors on young adults' career exploration processes. It was hypothesized that parental attachment would be positively correlated with career exploration and negatively correlated with career indecision. Peer attachment was also hypothesized to be positively correlated with career exploration and negatively correlated with career indecision. Lastly, self-efficacy was predicted to have a positive relationship with career exploration and a negative relationship with career indecision. The findings confirm the importance of parental attachment, peer attachment, and self-efficacy to the career exploration process of the young adults examined in this study.

#### **Family Influence**

While maternal attachment indirectly influences career exploration and career indecision, the results indicate that self-efficacy and peer influence significantly predict career outcomes. Previous research has found that maternal attachment is more influential than paternal attachment in regard to young adults' decision making processes (Germeijs & Verschueren, 2009). This study found that secure maternal attachment is predictive of greater self-efficacy and secure peer attachment. Paternal attachment did not have the same influence on these variables as maternal attachment. In turn, self-efficacy and peer influence are more influential on a young adult's career exploration process than parental attachment.

Although paternal attachment was not a significant predictor, it was positively related to peer attachment, environmental exploration, and self-efficacy. In addition, parental attachment was negatively correlated with career indecision; greater parental

attachment was indicative of lower career indecision and greater career decision-making self-efficacy. These findings were not surprising because attachment theory and family systems theory posit this influence resulting from positive parent-child relationships (Fraley et al., 2013; Lopez & Andrews, 1987). These correlations, although not all significant, suggest that greater attachment to one's parental figures may result in more confidence when making career-related decisions. Moreover, the results indicate that the presence of career indecision might stem from insecure attachment to one's parental unit or negative family interactions.

The hypotheses that predicted a positive relationship between parental attachment and career exploration and a negative relationship between parental attachment and career indecision were not supported. However, the results imply that parental attachment is more predictive of peer attachment and general self-efficacy, especially maternal attachment. A young adult's maternal attachment is significantly related to his or her attachment to peers. In addition, paternal attachment in relation to peer attachment approached significance ( $p = .084$ ). This finding is conceptually sound and further supported by attachment theory, which implies that individuals are shaped by their early childhood experiences, including interactions with parental figures (Fraley et al., 2013). From these results, young adults with secure attachment with their parents will be more capable of creating secure attachment relationships with peers in college because they have a safe foundation for exploration.

Additionally, the correlation between maternal attachment and general self-efficacy also approached significance ( $p = .068$ ). This finding implies that young adults who experience secure relationships with their mothers are more likely to have a general sense of confidence in their abilities to complete tasks, such as the task of exploring

career opportunities. Moreover, this finding is consistent with existing literature, which has indicated that a secure and supportive parental unit promotes active exploration of one's environment and increases confidence in career-related decisions (Vignoli, 2009). An interesting finding was the lack of influence that paternal attachment had on general self-efficacy.

One possible explanation for the observed differences between maternal and paternal attachment outcomes is absence of a paternal figure. The data indicated that 19.1% of the participants (N = 21) did not provide responses for the father subscale. These young adults may not have a stable paternal figure in their lives. Past research has indicated that children raised in homes with absent fathers experienced greater levels of warmth and secure attachment with their mothers (Golombok, Tasker, & Murray, 1997). Therefore, the literature would support that the young adults who did not respond to the paternal items were more likely to report greater levels of secure attachment to their maternal figure.

### **Peer Influence**

Greater peer attachment is predictive of lower environmental exploration and career indecision. The negative correlation between peer attachment and environmental exploration rejects the hypothesis that initially predicted a positive relationship between the variables. This finding is surprising because it conflicts with past research, which has suggested that secure attachment relationships with peers are predictive of greater career exploration (Blustein et al., 1995; Felsman & Blustein, 1999). There are several possible explanations for this finding. One explanation is the possibility that spending more time with one's peers results in less time spent exploring one's career opportunities. An item on the peer attachment subscale stated, "I feel the need to be in touch with my friends

more often”, which could imply that individuals with close relationships with peers are engaging with their peers more than exploring their occupational environment.

An additional explanation for the negative relationship between peer attachment and environmental exploration is technology. It is possible that communication with peers through modern technology (e.g., texting and social media) has become a distraction for young adults. Young adults may be more focused on their Facebook accounts than their future careers.

Although not significant, the negative correlation between peer attachment and career indecision supports the hypothesis. This finding is consistent with previous literature, which indicated that secure peer relationships decreases the stress that develops from exploring one’s career opportunities, which in turn decrease indecision by increasing confidence (Felsman & Blustein, 1999). In short, young adults with secure peer attachments are able to make career choices with greater confidence, thus decreasing the presence of indecision. Peers can provide advice and support to young adults who are struggling with making career-related decisions.

### **Self-Efficacy**

Previous research has consistently found positive relationships between self-efficacy and career exploration (Betz & Vuyten, 1997; Creed et al., 2007). The findings from this study support the final hypothesis that predicted a positive relationship between self-efficacy and career exploration and a negative relationship between self-efficacy and career indecision. There was a significant negative correlation between general self-efficacy and career indecision and a significant positive correlation between general self-efficacy and environmental exploration. These findings underscore the importance of self-efficacy in the career decision-making process. The more confidence an individual

has in his or her abilities to complete a task, the less likely he or she will experience indecision and the more likely he or she will be to explore occupational opportunities.

### **Limitations**

The current study is not without limitations. A primary issue of this study is the recruitment method used to gain participants. Participants were recruited through convenience and snowball sampling, which produced a non-probability sample. Moreover, this sample does not truly represent the undergraduate population because participants were not selected at random. A random sample would best represent the population of young adults enrolled in a college or university.

An additional limitation is the size of the sample. Due to the relatively small sample size, the results from the present study cannot be generalized to the population of young adults. Providing an incentive may have increased the level of participation, as well as encouraged completion of the survey. Additionally, the sample was fairly homogenous in regard to sex, ethnicity, parental income, and location. A majority of the student participants were Caucasian, female, from the University of Kentucky, and were from families with higher incomes. Obtaining a larger, diverse sample would allow for more generalizability of the data.

Finally, another potential limitation of the present study is the reliance on self-report measures. A mixed methods technique would help to further clarify how the predictor variables influence the outcome variables. For example, a qualitative approach on parental attachment would help clarify why some individuals did not respond to the paternal subscale.

## **Implications for Practice**

Although research tends to focus on parent and peer attachment relationships, it is important to note that academic advisors also play an important role in the career decision-making process. The results found in some studies pertaining to adolescent career exploration (Felsman & Blustein, 1999; Ketterson & Blustein, 1997) focused on developing interventions for counselors or academic advisors who work with students struggling to make career related decisions. Interventions might include strengthening parental and peer relationships, finding ways to enhance young adults' self-efficacy, and helping individuals cope with career indecision.

The results of this study have implications for professionals working with young adult populations in academic or occupational settings. As suggested by Ketterson and Blustein (1997), counselors should examine support systems of students and clients who appear to be reluctant to choose a career path. The findings from this study indicate that parental and peer attachments either directly or indirectly influence a young adult's career exploration process. Given these findings, it becomes essential for students to create and maintain healthy support systems, which advisors can further encourage.

Additionally, given that the findings indicate a significant relationship between peer attachment and general self-efficacy, advisors should encourage students to join groups or participate in campus activities in order to expand their peer support systems. For example, students can join organization related to their career aspirations to meet other individuals with similar interests. Encouraging student participation in peer activities may create the potential for occupational growth by enhancing students' self-efficacy.



It is also important for academic advisors to have a general understanding for the difference between career indecision and career exploration. If not carefully assessed, career indecision and exploration may appear similar. Students experiencing career indecision will appear stressed, uncertain, hopeless, and discouraged about their potential future careers. Students who are exploring their environment will be seeking out new information, attending career orientation programs, investigating possibilities, and networking with other professionals. Academic advisors should provide resources and encouragement to those experiencing indecision, as well as praise and guidance to students who are actively exploring career opportunities.

A final implication for practice is directed toward collegiate coursework. As part of curriculum, instructors should create assignments that encourage students to begin exploring their future career opportunities. For example, students can research a career that interests them and develop a presentation on that career to share with the class. Providing career-related assignments throughout students' coursework will encourage students to begin the career exploration process.

### **Implications for Future Research**

Areas for future research include further exploration of the differences found between maternal and paternal attachment. Moreover, it would be interesting to examine in what circumstances a secure paternal attachment matters. While previous literature explains why maternal attachment is more influential on the career exploration process, a study specifically focused on both maternal and paternal influence is needed. Additionally, it would be interesting to examine the family foundation for career exploration. More specifically, studies can examine how much preparation and discussion about future careers is occurring at home.

An additional direction for future research is to explore nontraditional students' career exploration processes; it would be interesting to extend the study to include students beyond the age of 25. Also, studies that examine differences between males and females, as well as high and low income young adults are needed to better assess for diversity in the career exploration process. Future studies should examine differences between first-generation students and non-first-generation students. It would also be interesting to look at the influence that technology, specifically social media, may have on the career exploration and decision-making process of young adults.

The findings of this study indicate that peers are influential to the career exploration process. Future research should examine, in depth, how peers influence career exploration. Lastly, future research should examine the career-exploration process from a life course perspective.

### **Concluding Remarks**

In closing, this study has revealed that maternal attachment is a predictor variable for peer attachment and general self-efficacy, which then peer attachment and self-efficacy have an effect on environmental exploration and career indecision. Paternal attachment was not a significant predictor variable. These findings highlight the importance of secure attachment relationships with one's mother and peers in relation to the career exploration process.

## Appendices

### Appendix A

#### Key Terms

**Attachment relationships:** (specifically parental attachment) are the close ties that provide a secure base from which young adults explore career opportunities (Bowlby, 1982).

**Environmental exploration:** is the process of exploring one's environment, and for the scope of this study, it is used interchangeably with career exploration.

**Career exploration:** is defined by Blustein (1992) as the process in which individuals search for personal growth and information about the vocational environment. This period of exploration allows young adults to begin to choose and develop a career.

**Career indecision:** is the inability to make or commit to a choice regarding one's future career. Indecision, in general, will cause a person to question or be uncertain about one's own ability to make choices (Vignoli, 2009).

**Pre-advising:** is an advising meeting that takes place prior to a student meeting with his or her academic advisor.

**Self-efficacy:** is an individual's belief about his or her ability to complete a specific task (Betz & Vuyten, 1997). For the scope of this study, self-efficacy will focus on an individual's perceived ability to complete a career-related task.

## Appendix B



### EXEMPTION CERTIFICATION

Office of Research Integrity  
IRB, IACUC, RDRC  
315 Kinkead Hall  
Lexington, KY 40506-0057  
859 257-9428  
fax 859 257-8995  
[www.research.uky.edu/ori/](http://www.research.uky.edu/ori/)

MEMO: Joanne Hellmann  
315 Funkhouser  
0054  
PI phone #: (856) 571-5050

FROM: Institutional Review Board  
c/o Office of Research Integrity

SUBJECT: Exemption Certification for Protocol No. 14-0028-X4B

DATE: February 18, 2014

On February 17, 2014, it was determined that your project entitled, *Social and Psychological Factors Related to the Career Exploration Process of Young Adults*, meets federal criteria to qualify as an exempt study.

Because the study has been certified as exempt, you will not be required to complete continuation or final review reports. However, it is your responsibility to notify the IRB prior to making any changes to the study. Please note that changes made to an exempt protocol may disqualify it from exempt status and may require an expedited or full review.

The Office of Research Integrity will hold your exemption application for six years. Before the end of the sixth year, you will be notified that your file will be closed and the application destroyed. If your project is still ongoing, you will need to contact the Office of Research Integrity upon receipt of that letter and follow the instructions for completing a new exemption application. It is, therefore, important that you keep your address current with the Office of Research Integrity.

For information describing investigator responsibilities after obtaining IRB approval, download and read the document "PI Guidance to Responsibilities, Qualifications, Records and Documentation of Human Subjects Research" from the Office of Research Integrity's Guidance and Policy Documents web page [<http://www.research.uky.edu/ori/human/guidance/htm#PIresp>]. Additional information regarding IRB review, federal regulations, and institutional policies may be found through ORI's web site [<http://www.research.uky.edu/ori/>]. If you have questions, need additional information, or would like a paper copy of the above mentioned document, contact the Office of Research Integrity at (859) 257-9428.

## Appendix C

### Consent to Participate in a Research Study

#### **Social and Psychological Factors Related to the Career Exploration Process of Young Adults**

##### **WHY ARE YOU BEING INVITED TO TAKE PART IN THIS RESEARCH?**

You are being invited to take part in a research study about the career exploration process of young adults. You are being invited to take part in this research study because of your status as an undergraduate student in a college or university setting. If you volunteer to take part in this study, you will be one of about 500 people to do so.

##### **WHO IS DOING THE STUDY?**

The person in charge of this study is Joanne Hellmann (Principal Investigator) of University of Kentucky Department of Family Sciences. Joanne is a Masters student who is being guided in this research by Dr. Donna Smith (Faculty Advisor). There may be other people on the research team assisting at different times during the study.

##### **WHAT IS THE PURPOSE OF THIS STUDY?**

Career indecision is a major concern of career psychologists, practitioners, researchers, and educators. The inability to make career related decisions is a common occurrence in adolescents and young adults. Additionally, selecting, and committing to a career choice is a major developmental task of young adults. Young adulthood appears to be the time one must begin to make career related decisions, plans, and choices. This study is investigating if parental and peer attachment and self-efficacy are influential factors on the career decision-making process of young adults.

By doing this study, we hope to learn how to assist individuals that are experiencing career indecision, which is defined as the inability to commit to or make a career-related decision.

##### **ARE THERE REASONS WHY YOU SHOULD NOT TAKE PART IN THIS STUDY?**

If you do not meet the age requirement of 18-25, you should not take part in this study. Otherwise, there are no other known reasons why you should not take part in this study.

##### **WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?**

The research procedures will be conducted through an online survey at [www.qualtrics.com](http://www.qualtrics.com). Additionally, paper versions of the survey will be provided in classroom settings. You will need Internet access in order to complete the online version of this survey. Completion of this survey will take approximately 20-30 minutes. The total amount of time you will be asked to volunteer for this study one completion, lasting approximately 30 minutes.

### **WHAT WILL YOU BE ASKED TO DO?**

You will be asked to answer questions about your career exploration process, career indecision, parental and peer attachment, and career decision-making self-efficacy. This study is cross-sectional; therefore, you will only be asked to complete the survey once. The survey should take no longer than 30 minutes to complete.

### **WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?**

To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life.

### **WILL YOU BENEFIT FROM TAKING PART IN THIS STUDY?**

You will not get any personal benefit from taking part in this study. Your willingness to take part, however, may, in the future, help society as a whole better understand the career exploration process for young adults.

### **DO YOU HAVE TO TAKE PART IN THE STUDY?**

If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering.

### **IF YOU DON'T WANT TO TAKE PART IN THE STUDY, ARE THERE OTHER CHOICES?**

If you do not want to be in the study, there are no other choices except not to take part in the study.

### **WHAT WILL IT COST YOU TO PARTICIPATE?**

There are no costs associated with taking part in the study.

### **WILL YOU RECEIVE ANY REWARDS FOR TAKING PART IN THIS STUDY?**

You will not receive any rewards or payment for taking part in the study.

### **WHO WILL SEE THE INFORMATION THAT YOU GIVE?**

This study is anonymous. That means that no one, not even members of the research team, will know that the information you give came from you.

### **CAN YOUR TAKING PART IN THE STUDY END EARLY?**

If you decide to take part in the study you still have the right to decide at any time that you no longer want to continue. You will not be treated differently if you decide to stop taking part in the study.

### **WHAT ELSE DO YOU NEED TO KNOW?**

There is a possibility that the data collected from you may be shared with other investigators in the future. If that is the case the data will not contain information that can identify you unless you give your consent or the UK Institutional Review Board (IRB) approves the research. The IRB is a committee that reviews ethical issues, according to federal, state and local regulations on research with human subjects, to make sure the study complies with these before approval of a research study is issued.

### **WHAT IF YOU HAVE QUESTIONS, SUGGESTIONS, CONCERNS, OR COMPLAINTS?**

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions, suggestions, concerns, or complaints about the study, you can contact the investigator, Joanne Hellmann at [jnhavi2@uky.edu](mailto:jnhavi2@uky.edu). If you have any questions about your rights as a volunteer in this research, contact the staff in the Office of Research Integrity at the University of Kentucky between the business hours of 8am and 5pm EST, Mon-Fri. at 859-257-9428 or toll free at 1-866-400-9428.

Appendix D

**Career Exploration Survey (CES)** (Stumpf, Colarelli, & Harman, 1983)

1	2	3	4	5
Very Little	Little	Neutral	Often	Very Often

*Environmental Exploration*

To what extent have you behaved in the following ways over the last three months?

1. Investigated career possibilities.
2. Went to various career orientation programs.
3. Obtained information on specific jobs or companies.
4. Initiated conversation with knowledgeable individuals in my career area.
5. Obtained information on the labor market and general job opportunities in my career area.
6. Sought information on specific areas of career interest.

*Self-Exploration*

To what extent have you done the following in the past three months?

7. Reflected on how my past integrates with my future career.
8. Focused on my thoughts on me as a person.
9. Contemplated my past.
10. Been retrospective in thinking about my career.
11. Understood a new relevance of past behavior for my future career.



## Appendix E

### Career Decision Making Scale (Osipow, 1987)

1	2	3	4
Not at all like me			Exactly like me

#### *Career Indecision*

1. If I had the skills or the opportunity, I know I would be a \_\_\_\_\_, but this choice is really not possible for me. I haven't given much consideration to any other alternatives, however.
2. Several careers have equal appeal to me. I'm having a difficult time deciding among them.
3. I know I will have to go to work eventually, but none of the careers I know about appeal to me.
4. I'd like to be a \_\_\_\_\_, but I'd be going against the wishes of someone who is important to me if I did so. Because of this, it's difficult for me to make a career decision right now. I hope I can find a way to please them and myself.
5. Until now, I haven't given much thought to choosing a career. I feel lost when I think about it because I haven't had many experiences in making decisions on my own and don't have enough information to make a career decision right now.
6. I feel discouraged because everything about choosing a career seems so "ify" and uncertain; I feel discouraged, so much so that I'd like to put off making decisions for the time being.
7. I thought I knew what I wanted for a career, but recently I found out that it wouldn't be possible for me to pursue it. Now I've got to start looking for other possible careers.
8. I want to be absolutely certain that my career choice is the "right" one, but none of the careers I know about seem ideal for me.
9. Having to make a career decision bothers me. I'd like to make a decision quickly and get it over with. I wish I could take a test that would tell me what kind of career I should pursue.
10. I know what I'd like to major in, but I don't know what careers it can lead to that would satisfy me.

11. I can't make a career choice right now because I don't know what my abilities are.
12. I don't know what my interests are. A few things "turn" me on but I'm not sure that they are related in any way to my career possibilities.
13. So many things interest me and I know I have the ability to do well regardless of what career I choose. It's hard for me to find just one thing that I would want as a career.
14. I have decided on a career, but I'm not certain how to go about implementing my choice. What do I need to do to become a \_\_\_\_\_ anyway?
15. I need more information about what different occupations are like before I can make a career decision.
16. I think I know what to major in, but I feel I need some additional support to make that choice for myself.

## Appendix F

### **Inventory of Parent and Peer Attachment (IPPA)** (Armsden & Greenberg, 1987)

1	2	3	4	5
Almost Never or Never True	Not Very Often True	Sometimes True	Often True	Almost Always or Always True

#### *Maternal Attachment*

1. My mother respects my feelings.
2. I feel my mother does a good job as my mother.
3. I wish I had a different mother.
4. My mother accepts me as I am.
5. I like to get my mother's point of view on things I'm concerned about.
6. I feel it's no use letting my feelings show around my mother.
7. My mother can tell when I'm upset about something.
8. Talking over my problems with my mother makes me feel ashamed or foolish.
9. My mother expects too much from me.
10. I get upset easily around my mother.
11. I get upset a lot more than my mother knows about.
12. When we discuss things, my mother cares about my point of view.
13. My mother trusts my judgment.
14. My mother has her own problems, so I don't bother her with mine.
15. My mother helps me to understand myself better.
16. I tell my mother about my problems and troubles.
17. I feel angry with my mother.
18. I don't get much attention from my mother.
19. My mother helps me to talk about my difficulties.
20. My mother understands me.
21. When I am angry about something, my mother tries to be understanding.

22. I trust my mother.
23. My mother doesn't understand what I'm going through these days.
24. I can count on my mother when I need to get something off my chest.
25. If my mother knows something is bothering me, she asked me about it.

*Paternal Attachment*

1. My father respects my feelings.
2. I feel my father does a good job as my father.
3. I wish I had a different father.
4. My father accepts me as I am.
5. I like to get my father's point of view on things I'm concerned about.
6. I feel it's no use letting my feelings show around my father.
7. My father can tell when I'm upset about something.
8. Talking over my problems with my father makes me feel ashamed or foolish.
9. My father expects too much from me.
10. I get upset easily around my father.
11. I get upset a lot more than my father knows about.
12. When we discuss things, my father cares about my point of view.
13. My father trusts my judgment.
14. My father has his own problems, so I don't bother him with mine.
15. My father helps me to understand myself better.
16. I tell my father about my problems and troubles.
17. I feel angry with my father.
18. I don't get much attention from my father.
19. My father helps me to talk about my difficulties.
20. My father understands me.
21. When I am angry about something, my father tries to be understanding.
22. I trust my father.
23. My father doesn't understand what I'm going through these days.

24. I can count on my father when I need to get something off my chest.
25. If my father knows something is bothering me, he asked me about it.

*Peer Attachment*

1. I like to get my friend's point of view on things I'm concerned about.
2. My friends can tell when I'm upset about something.
3. When we discuss things, my friends care about my point of view.
4. Talking over my problems with friends make me feel ashamed or foolish.
5. I wish I had different friends.
6. My friends understand me.
7. My friends encourage me to talk about my difficulties.
8. My friends accept me as I am.
9. I feel the need to be in touch with my friends more often.
10. My friends don't understand what I'm going through these days.
11. I feel alone or apart when I am with my friends.
12. My friends listen to what I have to say.
13. I feel my friends are good friends.
14. My friends are fairly easy to talk to.
15. When I am angry about something, my friends try to be understanding.
16. My friends help me to understand myself better.
17. My friends care about how I am feeling.
18. I feel angry with my friends.
19. I can count on my friends when I need to get something off my chest.
20. I trust my friends.
21. My friends respect my feelings.
22. I get upset a lot more than my friends know about.
23. It seems as if my friends are irritated with me for no reason.
24. I can tell my friends about my problems and troubles.
25. If my friends know something is bothering me, they ask me about it.

## Appendix G

### **Career Decision Self-Efficacy Scale – Short Form** (Betz, Klein & Taylor, 1996)

1	2	3	4	5
No confidence at all	Very little confidence	Moderate confidence	Much confidence	Complete confidence

How much confidence do you have that you could:

1. Use the internet to find information that interest you.
2. Select one major from a list of potential majors you are considering.
3. Make a plan of your goals for the next five years.
4. Determine the steps to take if you are having academic trouble with an aspect of your chosen major.

## Appendix H

### The General Self-Efficacy Scale (GSE) (Schwarzer & Jerusalem, 1995)

1	2	3	4
No at all true	Hardly true	Moderately true	Exactly true

1. I can always manage to solve difficult problems.
2. If someone opposes me, I can find the means and ways to get what I want.
3. It is easy for me to stick to my aims and accomplish my goals.
4. I am confident that I could deal efficiently with unexpected events.
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.
6. I can solve most problems if I invest the necessary effort.
7. I can remain calm when facing difficulties because I can rely on my coping abilities.
8. When I am confronted with a problem, I can usually find several solutions.
9. If I am in trouble, I can usually think of a solution.
10. I can usually handle whatever comes my way.

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